STOCKPILE AND ACCESSIBILITY OF STRATEGIC AND CRITICAL MATERIALS TO THE UNITED STATES IN TIME OF WAR

HEARING

BEFORE THE

SPECIAL SUBCOMMITTEE ON MINERALS, MATERIALS, AND FUELS ECONOMICS

OF THE

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS UNITED STATES SENATE

EIGHTY-THIRD CONGRESS

FIRST AND SECOND SESSIONS

PURSUANT TO

S. Res. 143

RESOLUTION TO INVESTIGATE THE ACCESSIBILITY AND AVAILABILITY OF SUPPLIES OF CRITICAL RAW MATERIALS

PART 5

COMMODITY TRADE AGREEMENTS UNDER UNITED NATIONS AUSPICES

WASHINGTON, D. C., MAY 28, 1954

Printed for the use of the Committee on Interior and Insular Affairs

UNIV. OF MICH.
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UNITED STATES
GOVERNMENT PRINTING OFFICE
39888 WASHINGTON : 1954

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STOCKPILE AND ACCESSIBILITY OF STRATIGIC AND CRITICAL MATERIALS TO THE UNITED STATES IN TIME OF WAR

WEDNESDAY, MAY 26, 1954

UNITED STATES SENATE,
SPECIAL SUBCOMMITTEE ON MINERALS, MATERIALS, AND
FUELS ECONOMICS OF THE COMMITTEE
ON INTERIOR AND INSULAR AFFAIRS,
Washington, D. C.

The subcommittee met at 10:15 a. m., pursuant to call, in room 224, Senate Office Building, Senator George W. Malone (chairman of the subcommittee) presiding.

Present: Senator Malone.

Present also: Jerome S. Adlerman, counsel to the subcommittee; George B. Holderer, subcommittee engineer.

Senator MALONE. The subcommittee will be in order.

There are three principal witnesses this morning, beginning with Samuel C. Waugh, Assistant Secretary of State for Economic Affairs.

Will you come up, and bring Mr. Nichols and Mr. Stibravy from the State Department. I understand they are here to assist in your testimony. Dr. Klaus Knorr and Dr. Benjamin Graham are here.

Would you come up and have a seat here at the table?

I want to say at the outset, as you already know, that the hearings of our subcommittee are informal, but what we want always to do is to have a very complete record.

Mr. Waugh, you may feel free to call on any of your associates here, or Dr. Knorr or Dr. Graham, at any time.

PURPOSE OF HEARING

The committee, as you know, Mr. Waugh, has been empowered under Senate Resolution 143 to investigate into the accessibility of strategic materials to the United States in time of war and the increasing supply that is necessary for our domestic economy and for our security.

One subject that has aroused the interest of the committee has been the formulation of commodity agreements entered into by the State Department with other nations.

Congress in the past has refused to endorse the Habana Charter which would set up an International Trade Organization. Despite this fact, we find that, like the hydra-headed monster when we lop off one head, another, such as the International Materials Conference, springs up and now apparently we are confronted with still another under the auspices of the U. N.

First, the committee is interested to learn who is behind these constant efforts to involve the United States in an International Trade Organization. Second, it is interested in ascertaining just what are the legal effects of its membership in the United Nations if such an International Trade Organization, which, I believe, may now be known as the Permanent Advisory Commission on International Trade, is formed under the auspices of the United Nations. Would we be legally bound to accept it and to enforce its edicts? Third, even though such organization would not have legal effect in this country, would we be morally obligated by reason of our membership to abide by its edicts and regulations? Fourth, even though we might not be legally or morally bound to accept its regulations, what would be the economic effect and impact on the United States insofar as the supply of strategic materials is concerned if these other nations decide to go ahead with the Permanent Advisory Commission on International Trade on their own?

Would we then be faced with an international cartel which would fix whatever prices it desired at artificial levels?

Would it enforce quotas and allocations as to the amounts of commodities we could purchase, and would it be in a position, if it desired, under this setup to cut us off from strategic materials under the control of the membership of this Commission even though we were not a member officially?

It seems that that is what we have antitrust laws for in this country, and it is a bit difficult to have an international antitrust law.

In order to present the proper chronology and lay a foundation for the questions, I am going to deal at some length with the past history of the events that led up to the present formation of the United Nations Permanent Advisory Commission on International Trade.

In January, the New York Times reported a study by the United Nations on commodity trade and economic development. This report came to my attention on January 13, while this committee was reviewing the activities of the International Materials Conference.

By the way, for your information, Mr. Waugh, if you do not have a copy of it, that part has been printed and will be available to all of you.

STATEMENT OF SAMUEL C. WAUGH, ASSISTANT SECRETARY OF STATE FOR ECONOMIC AFFAIRS, ACCOMPANIED BY C. W. NICHOLS, ACTING DEPUTY DIRECTOR, OFFICE OF MATERIALS POLICY, STATE DEPARTMENT, AND WILLIAM J. STIBRAVY, SPECIAL ASSISTANT TO THE DIRECTOR, OFFICE OF FINANCIAL AND DEVELOPMENT POLICY, STATE DEPARTMENT

Mr. WAUGH. I have it.

Senator MALONE. It is very interesting.

Our hearings have now been printed and on page 110 of part 4 starts an interrogation of Mr. Armstrong of the United States State Department in which I asked him what he knew about the proposed new Trade Stabilization Commission. I read portions of the New York Times release to him which appear on pages 110 and 111 of our hearings. I now want to read from page 119 of these hearings my

interrogation of Mr. Evans, then the Director of the Office of Materials Policy, who was before the subcommittee.

Senator MALONE. And now we have the proposal already read into the record of a new U. N. commission to deal with commodity supply and prices.

Mr. EVANS. May I comment on that, sir?

Senator MALONE. Yes.

Mr. EVANS. Mr. Armstrong was testifying when you read it. This proposal for an international commission, I am familiar with for the same reason as you, that I have read about it in the papers. This was true, I think, of everybody in the United States Government. It was a report of an expert group that was established by the United Nations as a result of a resolution passed at an earlier session of the United Nations. These experts had no authority whatever other than to make some recommendations to the United Nations. They have now made those recommendations. Those recommendations have no status whatever so far as the United States Government is concerned. Mr. Armstrong has reminded me that the United States voted against the resolution which established the commission.

Now let me continue reading from page 119:

Mr. EVANS. No commission has been established. An expert committee to study the question of stabilization and to make some proposals was established. It has now proposed a commission. The United Nations has not acted on its proposal. It has, as I say, no status other than a report by five individuals.

Senator MALONE. How many nations are members of the United Nations, do you remember?

Mr. EVANS. I don't know the exact number; no, sir.

Senator MALONE. About how many?

Mr. EVANS. I know it is more than 50.

Senator MALONE. If we were outvoted on a majority vote they could establish such a commission, could they not?

Mr. EVANS. Well, they could establish their commission, I assume, without the United States vote, but they couldn't very well give the Commission any power over the United States.

That is the reason why we want to determine whether we are bound, if we are, in any way whatever, by what has now been done, which is what we anticipated at that time.

ESTABLISHMENT OF PERMANENT ADVISORY COMMISSION ON INTERNATIONAL COMMODITY TRADE

Today we are in a position to review what has happened during the months since our last discussion of this subject. The Economic and Social Council of the U. N. met in New York during April. A resolution was introduced by the Argentine Government to establish this Commission which we discussed. I will make the original Argentine resolution a part of the record.

UNITED NATIONS ECONOMIC AND SOCIAL COUNCIL

Distr. Limited
E/AC. 6/L. 78
April 8, 1954
English
Original: Spanish

Economic Committee, 17th Session, Item 3 (a)

ECONOMIC DEVELOPMENT OF UNDERDEVELOPED COUNTRIES REPORT OF THE GROUP OF EXPERTS ON INTERNATIONAL PRICE RELATIONS

ARGENTINA: DRAFT RESOLUTION

The Economic and Social Council, having regard to the report, Commodity Trade and Economic Development, submitted by the group of experts appointed under General Assembly Resolution 623 (VII) and the reports prepared by the

Secretary-General in response to that General Assembly resolution and Economic and Social Council Resolution 427 (XIV), paragraph 7 (E/2438, 2455, 2456, and 2456/Add. 1),

Considering:

That all the reports emphasize the need for devising effective measures of international cooperation to solve the grave problem of the instability of the proceeds of primary commodity exports which affects the majority of the countries in process of development.

That in order to facilitate the adoption of measures to achieve such stabilization on a just and equitable basis, it is necessary to establish specialized machinery, within the framework of the United Nations, permanently concerned with the examination of proposals capable of offering satisfactory solutions.

That, as is noted in the report, Commodity Trade and Economic Development, there is at present no effective international procedure for the study of such problems,

That it is urgent and essential, both for the underdeveloped countries and for the international economy as a whole, to find a rapid and effective solution of the grave and persistent problem of the instability of primary commodity markets and the secular deterioration of the terms of trade between primary commodities and manufactured goods in international trade,

Bearing in mind the need for adopting all measures likely to create the conditions of stability and well-being which are necessary for peaceful and friendly relations among nations;

Resolves that—

1. An advisory commission to be known as the Permanent Advisory Commission on International Commodity Trade shall be established as a directly subordinate organ of the Economic and Social Council.

2. The main task of the Commission shall be to examine measures tending to achieve relative stabilization of the proceeds of primary commodity exports, on a just and equitable basis, and to make recommendations to the Economic and Social Council to that end.

3. The Commission shall also function as an advisory organ of the Economic and Social Council in considering all problems related to the international trade in primary commodities. To this end, any State member may bring to the Commission's attention any problems affecting it in this matter and may take part in the Commission's discussion of the problem if it is not a member of the Commission.

4. The Commission shall also have the following functions:

(*a*) To keep constantly under review the movement of world primary commodity markets by the assembly and analysis of appropriate data.

(*b*) To submit periodical reports to the Council on its work and to propose without delay measures for the solution of problems within its terms of reference.

(*c*) To publish studies and statistical reports on prices, terms of trade, and other matters relating to the international trade in primary commodities.

5. The Permanent Advisory Commission on International Commodity Trade shall consist of 15 members of the United Nations who shall be elected having regard to proper geographical distribution and to their interest in the international trade in primary commodities, taking into account the size of their share in such trade or the importance of such trade to their national economy. The members of the Commission shall be elected for a term of 3 years and may be reelected.

6. The representatives of States members appointed to the Commission shall be experts specializing in matters relating to the international trade in primary commodities.

7. Representatives of the Secretary-General and of the specialized agencies concerned shall attend the meetings of the Commission, without vote.

8. The Commission shall function continuously and may hold such meetings as it considers desirable and necessary for the performance of its functions.

9. The Interim Coordinating Committee for International Commodity Arrangements shall be dissolved by virtue of this resolution and its functions shall be transferred to the Permanent Advisory Commission on International Commodity Trade.

10. The Commission may propose to the Council any changes in its terms of reference it may deem desirable.

Senator MALONE. Now, this Argentine resolution resolves that an advisory commission, to be known as the Permanent Advisory Com-

mission on International Commodity Trade, shall be established as a directly subordinate organ of the United Nations Economic and Social Council.

Just about the time, Mr. Secretary, that the Congress of the United States thinks it is on the way to at least lay down some policies and long-range principles that might result in the production of some of these materials, we find that we are not running our own business.

Mr. Waugh, I want to compliment the State Department on the way our representative, Mr. Preston Hotchkis, conducted himself at this meeting of the Economic and Social Council and now I want to make part of the record the portion of his statement before the first plenary session in whichUnited States opposition to the establishment of this Commission was voiced. I will read a few paragraphs from Mr. Hotchkis' statement. This is part of his statement.

> The experts also believe, however, that commodity agreements, if properly drawn and operated, may be an effective means for preventing excessive price fluctuations. This they hope might be obtained if the atempt were made to cover several commodities in a single agreement, instead of relying on the inevitably slow and uncertain increase in single commodity agreements.
>
> I must confess, Mr. President, that I find no ground to justify this hope. The difficulties experienced in negotiations relating to a single commodity would in my judgment be greatly multiplied if we attempted to deal with many commodities at the same time. Moreover, any agreement covering many commodities would involve widespread interferences with the workings of a free world economy. It would magnify the danger of diverting production, consumption and trade patterns from the channels they would be likely to assume under a more healthy, competitive, and free-enterprise system. The net result of such arrangements, even if it were practicable to conclude them, would I firmly believe, be deterimental and not beneficial to economic development.

As to the establishment of the trade stabilization commission recommended by the experts, Mr. Hotchkis said:

> My delegation is unable to support this recommendation. The proposed commission would inevitably exercise the same general responsibilities as the old Economic and Employment Commission of the Council and might be expected to suffer from the same defects.

I shall now make Mr. Hotchkis' entire statement a part of the record.

> UNITED STATES MISSION TO THE UNITED NATIONS
>
> For Immediate Release—Press Release No. 1895
>
> APRIL 7, 1954.
>
> STATEMENT BY THE HONORABLE PRESTON HOTCHKIS, UNITED STATES REPRESENTATIVE IN THE ECONOMIC AND SOCIAL COUNCIL, ON ECONOMIC DEVELOPMENT OF UNDERDEVELOPED COUNTRIES
>
> Mr. President, aid, which we wish to curtail; investment, which we wish to encourage; convertibility, which we wish to facilitate; and trade, which we wish to expand, is the way in which President Eisenhower has summarized his foreign economic policy.
>
> I feel confident that almost all of you agree with each of the four points of this United States policy. No country, I'm sure, likes to rely on assistance from abroad. Most of you realize the benefits which follow upon a free flow of private investment and a free exchange of currencies. Furthermore, I believe, all of you are eager to cooperate in the removal of artificial barriers to the increase in the peaceful trade of the world.
>
> I welcome this opportunity to express my understanding of how this policy of the United States will assist the economic development of the less developed countries. The United States has already demonstrated the vitality of its interest in this development, not merely by words, but by deeds. This is well attested by the scale and scope of our activities in the provision of both financial and technical assistance to the underdeveloped countries. You may have

read in this morning's press of our current request to Congress to maintain our programs of development assistance and to increase the programs of technical assistance to underdeveloped areas. We must now move forward toward conditions in which such extraordinarily assistance is not required.

At this session, we have the opportunity of concentrating on a special group of problems related to the promotion of economic development. I believe our work will be facilitated and made more useful if in our present discussions under agenda item 3 we keep as closely as possible to the problems listed under it. As we are all aware, there will be full opportunity at the next session of the Council to consider a number of other important issues in this large field which are not scheduled for consideration at the present time.

My own remarks will deal with issues raised by the report of the group of experts on commodity trade and economic development and the challenging subject of the international flow of private capital. The topic of land reform, which is also listed under agenda item 3, I propose to leave to committee consideration.

I address myself first to the report of the group of experts on commodity trade and economic development. The experts were required to include in their report some consideration of the problem of long-term changes in the relation between the prices of primary commodities and the prices of manufactured articles. This is a subject which has been much discussed both in the United Nations and in other international forums. The conclusions reached by the experts correspond to those presented in the report on Measures for International Economic Stability which a different group of experts, also appointed under a U. N. resolution, submitted to this Council in 1951. These conclusions are also similar to those my Government has expressed on a number of occasions. Their essence is this: It would be neither desirable nor practicable to attempt to change the long-term relationship of prices between primary commodities and manufactured goods which tends to be established by the operation of competitive market forces. The experts accordingly reject any proposals designed to change artificially the long-term course of price relationships between primary and manufactured commodities. I think that their work in this field has been most useful and realistic and I commend them for it. I should like also to pay my tribute to the Secretariat for the series of informative and germane studies presented under item 3 (b). These provide helpful factual and other data which supplement the work of the experts on long-term international price relationships but in no way disturb their conclusions.

The experts direct their attention chiefly to the problem of extreme short-term price fluctuations within the long-term trend. Such price swings present difficulties for all countries, but especially for those less developed countries which depend mainly for their foreign exchange earnings on the exports of only 1 or 2 primary commodities. Wide fluctuations and uncertain foreign exchange earnings may entail economic hardship and impede the steady progress of economic development.

The problem of marked price instability in primary commodity markets is, therefore, one with which my Government and all governments of the free world must be greatly concerned. As to the desirability of reducing this instability, there can be no disagreement. The problem to be faced is how this can be safely accomplished. Devices that serve temporarily to reduce price fluctuations must be judged by their potentialities for contributing to healthy economic growth. They may retard rather than promote such growth if they interfere with long-term price trends and introduce rigidities and restraints that impair the elasticity of economic adjustment which is fundamental to economic progress.

This is a danger which must be faced in the consideration of proposals for governmental commodity arrangements. This danger and the great practical difficulties involved in reaching accord on the details of any contemplated arrangement largely explain why so few international agreements involving consuming as well as producing countries have hitherto been reached. The experts recognize this situation and see little prospect of any substantial increase in the number of agreements. My delegation shares this view.

The experts also believe, however, that commodity agreements, if properly drawn and operated, may be an effective means for preventing excessive price fluctuation. This they hope might be obtained if the attempt were made to cover several commodities in a single agreement, instead of relying on the inevitably slow and uncertain increase in single commodity agreements.

I must confess, Mr. President, that I find no ground to justify this hope. The difficulties experienced in negotiations relating to a single commodity would in my judgment be greatly multiplied if we attempted to deal with many commodities at the same time. Moreover, any agreement covering many commodities

would involve widespread interference with the workings of a free-world economy. It would magnify the danger of diverting production, consumption and trade patterns from the channels they would be likely to assume under a more healthy, competitive and free enterprise system. The net result of such arrangements, even if it were practicable to conclude them, would, I firmly believe, be detrimental and not beneficial to economic development.

The experts extend their proposals for comprehensive commodity stabilization arrangements by recommending for further study a "commodity reserve currency scheme." If this were an academic seminar we might, Mr. President, find some interest in discussing the complexities of this by no means novel proposal. This, however, is not an exercise in which I would care to engage in this forum. I see no likelihood whatever that my Government would be disposed to give this scheme any serious consideration in the foreseeable future. I feel sure that other delegations will share my view that the scheme is impractical. I hope therefore that the Council will not devote time and energy which might well be spent in more useful activities to detailed examination of a proposal that would seem to have no chance whatever of acceptance by governments.

The experts recommend—and this is their most specific proposal—the establishment by the Council of a Trade Stabilization Commission. This Commission would be concerned with proposals for dealing with the problem of stabilization generally. It would leave undisturbed the existing international machinery, such as the Interim Coordinating Committee for International Commodity Arrangements and its associated study groups, which provide mainly for action, on commodity by commodity. My delegation is unable to support this recommendation. The proposed commission would inevitably exercise the same general responsibilities as the old Economic and Employment Commission of the Council and might be expected to suffer from the same defects. The establishment of a commission charged with responsibility for considering broad questions of economic policy would simply invite duplication of discussion, since these are questions which the Council itself must necessarily debate.

With respect to the experts' suggestions relating to the use of the fund's resources, I await with interest the statement to be made by the representative of the fund. My Government, as this Council has previously been assured, will be prepared, at such time as it may appear necessary, to give proper consideration to the matter of an increase in the fund's resources.

While my delegation has been unable to accept the views of the experts on a number of points, we have found much in their report that is useful and constructive. We welcome particularly their warning as to the dangers of excessive concern with international measures and their emphasis on the need for the pursuit by national governments of policies which contribute to stability. Underdeveloped countries must avoid inflation and prevent the dissipation in boom times of investment funds, public revenues, and foreign exchange earnings. Industrial countries can play a major role by combining steady economic growth with the maintenance of high levels of employment.

We must then, Mr. President, try to deal with this problem of excessive fluctuations by a realistic combination of international and national measures.

Internationally, countries can contribute to greater economic stability by collective efforts toward relaxation of trade and currency restrictions. We can consult and cooperate to improve knowledge of world supply and demand for materials and foodstuffs.

The field for national action is bread.

The experts have emphasized, and rightly so, the need for sound fiscal, monetary and investment policies. They have also properly stressed the importance of formulating broad development programs and developing the administrative resources and the political consensus necessary for their execution.

I might talk generally of what the industrial countries can do to promote greater economic stability. I feel it would be more useful, however, if I indicate specifically what my own country is doing.

(1) The United States is participating in study groups on several basic commodities; (2) President Eisenhower, in his recent statement to the Congress on foreign economic policy, recommended specific measures for the relaxation or removal of impediments to foreign trade; (3) in the conduct of our stockpiling programs we recognize an obligation to avoid actions which would have disruptive effects upon world prices; (4) in disposing of agricultural surpluses we shall take special precautions to safeguard against the substitution or displacement of normal commercial marketing; (5) we are assisting the economic development and diversification of underdeveloped countries through our financial and tech-

nical assistance programs and through our efforts to promote conditions favorable to an increased flow of private investment—a matter with which I shall deal shortly; (6) we are resolved to maintain high levels of economic activity in the United States. We all recognize the influence of the economic conditions in the United States upon world economic conditions. In his economic report for the Congress, President Eisenhower made it quite clear that the United States Government is prepared to use its vast powers, as circumstances may require, to help maintain at home employment and purchasing power as well as reasonably stable prices. By so doing we shall be making a major contribution to world economic stability.

Mr. President, I have tried to make clear that the United States not only recognizes fully the importance and seriousness of the problem of excessive price instability, but is pursuing a constructive program for alleviating it.

I turn now to the international flow of private capital. The benefits of private international investment are so much a part of our lives that it takes considerable effort to separate them out for individual scrutiny. But this we must do, for ours is the duty to see that the world is not prevented by any lack of vision from enjoying those benefits to the fullest.

To be sure those benefits have already been substantial. In the last 2 years something like $3½ billion of private investments abroad have been made by United States citizens alone. Perhaps, if the flow from Northwestern Europe were added, the total of private international investment in the last 2 years would be $5 billion.

But for me those global statistics tell the story far less impressively than do some of the specific investment histories with which I have become familiar as a result of my Government service, particularly as a member of the Business Advisory Council of the United States. Executives from Du Pont, from General Motors, from Standard of New Jersey, and from many other leading firms in the foreign investment field have served on the Council while I have been there. These men have told me of some of their development projects abroad. Just recently one of them told me how his firm had introduced a totally new and complex industrial process in a South American country. Within a few years direct employment was given to 4,000 men and only 11 of these were from the United States. Similar examples can be cited around the world.

I have been told how, in the development of the tremendous iron ore resources of Venezuela, in itself a notable achievement, the United States Steel Corp. is building a 90-mile railroad from Cerro Bolivar to Puerto Ordaz on the Orinoco River. The latter river, too, through intensive dredging has become an important artery for the supply of raw materials to world markets. The impact of this single investment in terms of employment of Venezuelan nationals, the provision of electrical facilities, housing, schools, and medical facilities, quite apart from direct contributions to the Venezuelan economy in the form of taxes, is staggering.

The Firestone Tire & Rubber Co. investment in Liberia is a classic example of foreign capital investment which has contributed tremendously to the economic strength, political stability and social progress of an underdeveloped country. The Firestone investment in Liberia, estimated at sixty or seventy million dollars, provides employment for about 15,000 Liberians and is a principal source of revenue for the Liberian Government. The success of the Firestone venture in Liberia, and the good relations consistently maintained with the Liberian Government have encouraged other investments in Liberia, particularly in mining, and additional important investments in the future may be confidently expected.

The immensity of these United States Steel and Firestone investments should not lead us to overlook the contribution to economic development of the hundreds of smaller investments being made each year. For example, a relatively small investment, which may prove important to the country in which it will be made, will follow from the recent decision of one United States firm to install a plant in the tropics for the manufacture and canning of banana puree and banana flakes. The first product will be sold primarily to manufacturers of baby foods, the second is to be used for flavoring purposes. The investment will make possible the utilization of much substandard fruit which has hitherto largely been wasted.

I could go on citing other cases. Many of you could do likewise. Some of you undoubtedly know better than I the astounding story of the growth of Sears, Roebuck in Latin America, how new standards of merchandising have been introduced, how scores of new small industries have been called into being.

The examples I have given illustrate the predominant form of investment today. It is direct investment in which the flow of managerial and technical assistance is often more important than the capital itself. The so-called capital-exporting countries invest, not only their capital, but also their technicians, their ideas, and their ideals.

Portfolio investment, as we knew it in the twenties, when large sums were sent abroad, sometimes rather recklessly, has now pretty much disappeared. Today, of course, we have the International Bank and national institutions such as our Export-Import Bank where capital is combined with technical assistance and careful analysis. These institutions are helping to provide the underdeveloped countries with basic facilities which increase the opportunities for diversified private investment. These institutions seek private partners in their lending operations, and, to an increasing degree, are turning for their funds to the private portfolio markets. The investment climate abroad is thus of direct importance to the investments of the public lending agencies. Government lending agencies could conceivably provide capital in the face of an unfriendly investment climate, but the supply of such funds is never likely to be large. Therefore, when we talk about measures to stimulate the international flow of capital we are talking about measures to influence the individual decisions of potential private investors.

Unfortunately, as we all know, these decisions are adversely affected by several general conditions. The most important of these are the fear of war and political instability. But, there are other impediments more fully within the control of individual governments. These include threats of nationalization and expropriation, discriminatory treatment of foreign companies, stringent controls over the entry and operations of foreign investors, and restrictions on the repatriation of earnings, of capital gains, and of capital itself. Removal of these impediments is necessary if a satisfactory climate for foreign investments is to be built.

I do not mean to imply, however, that if these impediments were removed private investment would flow automatically in fabulous volume. It is sometimes assumed that there is a widespread interest among business groups in the capital exporting countries in investing abroad, and a strong desire for overseas outlets for capital. Such an assumption is open to serious question. The American corporate or individual investor has ample opportunity to invest his capital within his own country, in an environment which he knows and in which he has confidence. Corporate investment in the United States, for example, has averaged around $33 billion annually during the past 4 years. The American corporation has a large domestic market close at hand, and its overseas interests may be confined to production in the United States for export. When it comes to investing abroad the corporation is likely to be interested initially in the countries most familiar to it which may be those which are closest geographically.

The problem of the underdeveloped country is not to protect itself from the American investor but rather to solicit his active interest—to demonstrate that there are opportunities for profitable investment and that reasonable efforts are being made to meet his legitimate requirements as to treatment. In short, there is a selling job to be done by the capital importing countries in awakening interest, in dispelling ignorance and in inspiring confidence. These countries should recognize that when they seek private capital they enter a highly competitive market, where they must compete with other areas and the opportunities they offer for profitable investment. The establishment of conditions conducive to private investment is extremely important, but it must be supplemented by active measures to attract capital—and success should not be expected overnight. This is not primarily a job for the governments of capital exporting countries; it can only be done by those countries seeking and needing foreign investment.

Private capital must be attracted. It cannot be driven. A successfully operating enterprise is better evidence of the acutal investment climate than broad statements of policy or intent. This emphasizes the importance of treating existing enterprises in a fair and nondiscriminatory manner, for the maltreatment of a single enterprise can do much to deter the flow of capital—and the effects often travel beyond the borders of the particular country involved.

We commend the steps taken in certain countries which indicate their realization of the importance of the problem and the nature of the job to be done. We in the more highly developed countries are fully prepared to advise and assist where appropriate, although nothing on our part can substitute for the basic decisions and policies of the capital importing countries.

In recent years the United States Government has taken various steps to encourage investment abroad by United States citizens:

The Government has sought to give wide circulation to information on foreign investment opportunities. We publish investment opportunities in the Foreign Commerce Weekly and also disseminate such information through the field offices of the Department of Commerce and through chambers of commerce and trade associations. Through the contact clearinghouse system of the Foreign Operations Administration we circulate investment opportunities to several thousand American private individuals and firms. Our Department of Commerce published an analysis of factors affecting investment in some 26 countries. It is now publishing studies on investment conditions and outlook in selected countries. Such studies have been published to date on India, Venezuela, and Colombia.

The United States is actively pursuing a program of negotiating treaties which have as one of their objects the assurance of conditions favorable to the investment of private foreign capital. At the present time there are in effect 32 comprehensive treaties dealing with general economic relations between the United States and individual foreign countries. We are prepared to sit down at any time with the representatives of a country desiring to facilitate foreign investment for the purpose of discussing the conclusion of such a treaty.

Since 1948 the United States Government has had in operation a program under which it is prepared to offer guaranties against certain of the nonbusiness risks affecting investment abroad. Limited at first to European countries, the program has since been expanded and is now available for new United States investment in any country which concludes the necessary bilateral agreement with the United States. Guaranties may be issued against the risk of inability to convert local currency earnings into dollars and the risk of loss from expropriation or nationalization. Outside of Europe the only countries which have availed themselves of this program are Israel, China, the Philippines, Haiti, and Japan. Discussions of the guaranty program have taken place with a number of other countries, and again the United States is prepared to discuss the application of the program to any country which sincerely desires to encourage the entry and operation of American enterprise. The President has recently recommended that this program be further expanded to cover risks of war, revolution and insurrection.

To provide incentives for an increased flow of private capital abroad, President Eisenhower has recommended to the Congress a number of important changes in the United States tax laws relating to the taxation of income from foreign sources. Congressional hearings on these proposals are beginning this very day. Included in these recommendations is a proposal to tax business income derived by United States corporations from sources abroad at a rate equal to 14 percentage points less than the rate prevailing at the time with respect to corporate income in the United States.

For illustration, instead of the present tax rate of 52 percent on corporate income, the rate applied to earnings from foreign operations would be only 38 percent. At the same time, the long-established policy of granting a tax credit for certain taxes paid abroad would reduce the effective rate in most cases to something much less than 38 percent.

These tax benefits would, generally speaking, be made available to United States corporations operating abroad either through a branch or through a corporate entity of the foreign country, as might be appropriate under local conditions. When the operation is conducted through a foreign corporation, it is proposed in certain circumstances to permit the United States corporation to hold as little as 10 percent of the stock of the operating company and still obtain these tax benefits.

Another proposal of the President would recognize, for tax credit purposes, the tax regimes of countries which rely on taxes other than income taxes as the principal source of revenue from a particular business activity. This would reduce the burden of the United States tax even further below the level I mentioned earlier.

We believe that, unilaterally, the United States is taking all steps it reasonably could through tax incentives to induce its capital to seek outlets in countries in which conditions are such as to offer attractive and profitable uses for foreign capital.

Bilaterally, there are further steps the United States is prepared to take. I refer to tax treaties for the alleviation of double taxation. These treaties are an integral part of the United States program to create a favorble tax climate for international trade and business. As of today, the United States is a party

with foreign countries to 15 treaties relating to income taxes, 10 treaties relating to estate taxes and death duties, and 1 treaty relating to the taxation of gifts. Income and estate tax treaties with 3 other countries are now in the closing stages of negotiations.

What I have said of the policies and program of United States Government is not intended to be self-laudatory or inclusive, but to indicate the reasons why we feel that the United States has gone a long distance in pursuing measures designed to encourage the international flow of private capital. For my part, I should like to hear more from the representatives of the capital importing countries with respect to the measures they have taken in their common effort. How far have they gone in examining their domestic laws and administrative practices with a view to removing deterrents to the flow of private capital? Have they gone as far as they might in providing adequate assurance through treaties or otherwise with respect to the treatment of foreign investors? Have they developed adequate information services and other means for informing potential investors of business opportunities and of the relevant laws and regulations governing foreign enterprise? Have they enlisted participation of their own private business interests in such activities?

The United States Government feels that there is considerable room for further action by individual governments along these lines. We stand ready to advise and assist the governments of capital importing countries where appropriate, but we cannot provide the will to take the necessary measures where it is lacking.

I come now to what the United Nations can do to encourage private investment.

First, the United Nations can continue the kind of work it has done in the two interesting and valuable reports prepared by the Secretary General pursuant to a previous Assembly resolution. These are most useful and they ought to be brought up to date from time to time, perhaps on an annual basis. We should welcome periodic reports providing information on the flow of private capital and the progress made in the adoption of measures to stimulate that flow.

Secondly, there is an important area of technical advice and assistance which ought to be given greater emphasis in the technical assistance activities of the United Nations and its specialized agencies.

The United States suggests that member governments give more consideration to including in their requests for technical assistance the following kinds of services:

(*a*) Assistance in economic surveys of member counties to determine the sectors most likely to be of interest to private investors, and to identify specific opportunities within those sectors.

(*b*) Advice on the preparation of material regarding specific projects in a manner which will command the attention of private investors.

(*c*) Advice in the revision of legislation and administrative practices affecting foreign investment.

(*d*) Advice in establishing channels for the presentation of specific projects to potential investors in capital-exporting countries.

Finally, Mr. President, the United Nations can affirm the importance of international private investment and can recommend measures to stimulate its flow. To this end, the United States will join with other countries in introducing a resolution embodying these recommendations. The adoption of this resolution will further the objective to which most of us attach such great importance.

Senator MALONE. After a valiant fight by the United States delegation, the Economic and Social Council adopted a modified version of the original Argentine resolution which I shall now make part of the record.

ECONOMIC DEVELOPMENT OF UNDERDEVELOPED COUNTRIES

RESOLUTION A. INTERNATIONAL PRICE RELATIONS

The Economic and Social Council, having regard to the report, Commodity Trade and Economic Development, submitted by the group of experts appointed under General Assembly resolution 623 (VII) and the reports prepared by the Secretary-General in response to that General Assembly resolution and Economic and Social Council resolution 427 (XIV), paragraph 7 (E/2438, 2455, and 2456/Add. 1),

Considering:

That all the reports emphasize the need for devising effective measures of international cooperation to solve the grave problems of the inadequacy and instability of the proceeds of primary commodity exports which affects the majority of the countries in process of development,

That in order to facilitate the adoption of measures to solve these problems on a just and equitable basis, it is necessary to establish specialized machinery, within the framework of the United Nations, permanently concerned with the examination of proposals capable of offering satisfactory solutions,

That, as is noted in the report, Commodity Trade and Economic Development, there is at present no effective international procedure for the study of such problems,

That it is urgent and essential, both for the underdeveloped countries and for the international economy as a whole, to find a solution of the grave and persistent problem of the instability of primary commodity markets and the secular deterioration of the terms of trade between primary commodities and manufactured goods in international trade;

Bearing in mind the need for adopting all measures likely to create the conditions of stability and well-being which are necessary for peaceful and friendly relations among nations;

Resolves that:

1. There shall be established an advisory commission to the Eoconmic and Social Council to be known as the Permanent Advisory Commission on International Commodity Trade.

2. The main task of the Commission shall be to examine measures designed to avoid excessive fluctuations in the prices of and the volume of trade in primary commodities, including measures aiming at the maintenance of a just and equitable relationship between the prices of primary commodities and the prices of manufactured goods in international trade, and to make recommendations. Any member of the United Nations not represented on the Commission may bring to the Commission's attention any aspects of the above problems affecting it in this matter and may take part in the Commission's discussion of the problem.

3. The Commission shall aso have the following functions:

(*a*) To keep constantly under review the movement of world primary commodity markets by the assembly and analysis of appropriate data;

(*b*) To submit periodic reports to the Council on its work and to propose without delay measures for the solution of problems within its terms of reference.

(c) To publish studies and statistical reports on prices, terms of trade and other matters relating to international trade in primary commodities.

Decides to postpone the organization and establishment of the Permanent Advisory Commission on International Commodity Trade until the 18th session, in connection with consideration of the reorganization of the Economic and Social Council and its commissions at that session. (Item 29 of the provisional agenda.)

Invites the Governments of the member States to transmit to the Economic and Social Council before its 18th session any relevant comments on the Advisory Commission and their views concerning their participation in the Commission.

Senator MALONE. This resolution was adopted on April 30, on a roll-call vote of the 18 nations participating in the Council. The United States was joined in opposing the establishment of the Trade Stabilization Commission by the United Kingdom, Belgium, France, and Norway. Australia abstained from voting. The resolution was adopted by Argentina, Free China, Cuba, Czechoslovakia, Ecuador, Egypt, India, Pakistan, Turkey, U. S. S. R., Venezuela, and Yugoslavia. This resolution authorized the establishment of a "Permanent Advisory Commission on International Trade" but postponed the organization and establishment of this body until the 18th session of the Economic and Social Council which will convene at Geneva in July.

The closing sentence of the resolution by the Council reads as follows:

Invites the governments of the member states to transmit to the Economic and Social Council before its 18th session any relevant comments on the Advisory Commission and their views concerning their participation in the Commission.

That session is scheduled for July of this year.

Now, Mr. Secretary, you will be expressing these views to the Council within the next 30 days. The Chairman believes that our participation in the Council would not be in the best interests of this country. This is one of the matters I wish to review with you.

The reason for this hearing is to review the position of the State Department as to further United States participation in this new Permanent Advisory Commission on International Trade. The subcommittee hopes that we will continue to oppose it in line with Mr. Evans' statement of last January, which I just read, where he said that the United States will not be a part of this Commission.

Before I get into the details of this, Mr. Secretary, I want to say that we have also asked Mr. Klaus Knorr, one of the experts who was appointed by the Secretary General to make the study entitled, Commodity Trade and Economic Development, and which recommended the establishment of this Commission to give us his thinking as to why such a step was necessary.

We also have with us Mr. Benjamin Graham, who over a period of years has participated in a number of studies with Mr. Julius Hirsch, who we asked to appear, but who is out of the country.

Page V of the U. N. study shows that Mr. Graham and Mr. Hirsch were of assistance to Mr. Knorr and the other experts. This is appendix 1 which I am submitting for inclusion in the record.

(The document referred to appears in the appendix at p. 127.)

Senator MALONE. I have a great deal of sympathy, Mr. Secretary, with United States representatives to international conferences, who today have to explain away so many of the proposals which we originally made to other nations.

BACKGROUND OF INTERNATIONAL TRADE ORGANIZATION

In our hearings on the International Materials Conference last October, Congressman Martin showed how the State Department back in 1945 published a document known as Proposals for Expansion of World Trade and Employment. This document is exhibit No. 3, and starts on page 338 of the hearings already published, as part IV.

These proposals included a number of chapters. (See pp. 344–352 of hearings, pt. IV.)

Chapter 3 of the original proposals, General Commercial Policy, are now the basis of GATT, General Agreements on Tariff and Trade.

It is very important to note what was proposed at that time. It is too long to read, but I mention it for ready reference. It goes into the general commercial provisions, tariffs and preferences, quantitative trade restrictions, subsidies, state trading, exchange control, general exceptions, territorial application of chapter 3, and covers the subject very thoroughly. It shows the preparations taken by the United States State Department in formulating the organization of GATT.

Chapter 4, on page 349, Restrictive Business Practices now provides the basis for the United Nations' ad hoc Committee on Restrictive

Business Practices, which operates under the Economic and Social Council and covers the curbing of restrictive business practices, cooperation among members, continued effectiveness of national laws and regulations directed against restrictive business practices, and special enforcement arrangements. It goes into a good deal of detail as to what in the judgment of the then State Department officials constituted restrictive business practices.

Chapter 5 of the original proposals, page 350 of the hearings, part IV, which later became chapter 6 of the Habana Charter, is the basis for the U. N. Interim Coordinating Committee on International Commodity Arrangements. This goes into intergovernmental commodity arrangements, including special commodity studies, intergovernmental commodity conferences, objectives of intergovernental commodity agreements, principles of intergovernmental commodity agreements, operation of commodity agreements, termination and renewal of commodity agreements, review of commodity agreements, and exceptions, all having a bearing on commodity agreements that show up in the Senate every once in a while.

So you see, Mr. Secretary, that we have no one to blame but ourselves when other nations suggest some of these schemes, as our sins have come home to plague us.

We make the suggestions in the first place. Now we find it necessary to oppose them.

The initials of this thing are ICCICA. I have heard that bandied about quite a few times in the last few months, but this is the first time we have gone into it to know what it was.

The proposed charter for the International Trade Organization was originally drafted by the United States State Department and included a chapter on intergovernmental commodity agreements. A meeting was held at London on October 15, 1946. The official report of the United States delegation to this meeting, which laid the foundations for the Havana Charter, is contained in part IV of our hearings, exhibit No. 5, on page 355. The draft charter which emerged from this meeting and the official U. N. report of the meeting itself appear in our hearings as exhibit 6 on page 385, part IV.

This draft charter later became the Havana Charter. It included a chapter on commodity agreements. On March 28, 1947, the Economic and Social Council of the United Nations, anticipating ultimate ratification of the charter for an international trade organization, adopted the following resolution.

Recommends that, pending the establishment of the International Trade Organization, members of the United Nations adopt as a general guide in intergovernmental consultation or action with respect to commodity problems, the principles laid down in commodity arrangements of the draft charter appended to the Report of the First Session of the Preparatory Committee of the United Nations Conference on Trade and Employment—although recognizing that discussion in future sessions of the Preparatory Conference itself, may result in modifications of the provisions relating to commodity problems, and

Requests the Secretary General to appoint an interim coordinating committee for international commodity arrangements to keep informed of and to facilitate by appropriate means such intergovernmental consultation or action with respect to commodity problems, the committee to consist of a chairman to represent the Preparatory Committee of the United Nations Conference on Trade and Employment, a person nominated by the Food and Agriculture Organization of the United Nations to be concerned in particular with agricultural primary commodities, and a person to be concerned in particular with nonagricultural primary commodities.

The "interim" in the title meant the interim before the International Trade Organization came into being.

Have you studied this material, Mr. Waugh?

Mr. WAUGH. I haven't studied it as intimately as you and your counsel have. I have read it all, yes, for background information.

Senator MALONE. You are about to be responsible for it, in your position.

Mr. WAUGH. Yes, but I don't think my position will ever make me responsible for what you have been reading.

Senator MALONE. Well, I hope not. But with the myriad of alphabetical agencies that no one understands unless they make a lifework of it and the piecemeal orders and commissions that are set up, good honest men in government that do not know the background of these organizations or their ultimate objective can fall into a terrific trap.

The Havana Charter was submitted by President Truman to the Committee on Foreign Affairs, House of Representatives, chairmanned by Representative John Kee of West Virgina. Hearings were held in the spring of 1950 under House Joint Resolution 236, 81st Congress, 2d session. This resolution provided for membership and participation by the United States in the International Trade Organization.

Secretary Acheson and Assistant Secretary Thorp urged our participation in the International Trade Organization.

This committee made no report on the charter, and at the end of 1950, President Truman anounced he would make no further efforts to bring the charter into force. This action by President Truman should have terminated the so-called interim committee.

After the United States had indicated that the Havana Charter would not receive congressional approval, the Economic and Social Council adopted Resolution 373 at the 13th session, September 13, 1951, which follows:

> Recommends that the members of the United Nations continue to accept the principles of chapter VI of the Havana Charter for an International Trade Organization as a general guide in intergovernmental consultation or action with respect to commodity problems.

The Interim Coordinating Committee for International Commodity Arrangements has been operating continuously since 1947 without congressional sanction. In the recent report of the President's Materials Policy Commission, that is, the Paley Commission, volume I, page 87, said:

> The United States has not ratified the treaty, but under a resolution of the United Nations Economic and Social Council is bound with other nations to recognize chapter VI as a general guide.

They came in through the cellar door. They can't get in the front door. There is always an opening, and it never dies. The question arises: Who is behind it? What group, and what for? The Interim Coordinating Committee for International Commodity Arrangements is still operating.

The reason advanced for the proposed new trade stabilization commission recommended by the experts who wrote the most recent report entitled "Commodity Trade and Economic Development" is as follows:

> It seems to us that there is at present no effective international procedure for discussing and proposing action on the general problems of stabilization—

that is speaking, I presume, of international stabilization. All of these problems seem simple to anyone who does not understand enough about them to know about the problems involved. Further quoting:

> a matter which transcends the problems of particular commodities. The present organization is directed toward piecemeal action, commodity by commodity. We do not think that this is sufficient; a general and simultaneous approach to the problem of stability in its many aspects is required. It is possible that a gap in international organization has here arisen unintentionally, through the absence of an international trade organization as envisaged in the Habana Charter.

In other words, they want to make it effective in spite of Congress. That is paragraph 273, page 83, of appendix 1.

The Interim Coordinating Committee for International Commodity Arrangements is still operating. The interim is not over even though Congress refused to accept the International Trade Organization.

So you see there was really nothing unintentional about the absence of an international trade organization. The Congress of the United States refused to establish it and now, Mr. Knorr, you and your associates are attempting indirectly through the United Nations to push us into something to which this Government has been opposed.

So that our record may be complete, I want to insert in the record the original resolution proposed by the Argentine Government to the General Assembly of the United Nations in November 1952, which led to the appointment by the Secretary-General of the committee of experts of which Dr. Knorr is a member. This resolution recommends adopting measures affecting the prices of primary commodities in international trade.

Mr. Secretary, I want to call your attention to this international dabbling in the materials business. It has a serious effect in making us dependent on offshore areas for the materials you can't fight without and that you can't get in wartime.

This resolution recommends adopting measures affecting the prices of primary commodities in international trade. It recommends against the production of synthetic or substitute materials which would affect natural commodities and recommends the insuring of stability of prices.

In 1947 a Senate committee, practically this same committee—I was chairman of it—had as a witness a State Department official, whose name I forget at the moment. He recommended that we not operate the synthetic rubber plants, because it would interfere with the production of raw rubber in some nations; some colonies and some nations being dependent upon that operation—saying nothing about our own economy. And I am sure that the producers of synthetics in this Nation, where we think we are making such great progress in producing substitutes and replacements for scarce materials, are not too happy about this recommendation. This resolution recommends adopting measures affecting prices of primary commodities in international trade. It recommends against the production of synthetics or substitute materials which would affect natural commodities and recommends the insuring of stability of prices.

The one who would insure those prices and who would put up the money will probably develop to be our well-known "Uncle."

As Mr. Evans previously testified, the United States voted against the adoption of this resolution. I am also making part of the record

the rollcall vote on the resolution and the discussion of this resolution as it appeared in the yearbook of the U. N. for the year 1952.

UNITED NATIONS GENERAL ASSEMBLY

Distr. Limited
A/C.2/L. 162/Rev. 2
25 November 1952
Original: English.

Seventh session, Second Committee, Agenda item 25 (a)

ECONOMIC DEVELOPMENT OF UNDERDEVELOPED COUNTRIES—FINANCING OF ECONOMIC DEVELOPMENT THROUGH THE ESTABLISHMENT OF FAIR AND EQUITABLE INTERNATIONAL PRICES FOR PRIMARY COMMODITIES AND THROUGH THE EXECUTION OF NATIONAL PROGRAMMES OF INTEGRATED ECONOMIC DEVELOPMENT

ARGENTINA: REVISED DRAFT RESOLUTION [1]

The General Assembly,

1. *Taking into account* the relevant passages of resolutions 307 (IV), 404 (V), 521 (VI), 523 (VI), and 403 (V) of the General Assembly, resolutions 341 (XII), 416 (F) (XIV), and 427 (XIV) of the Economic and Social Council, and the suggestions of the group of experts appointed in pursuance of the Council's resolution 290 (XI);

2. *Recognizing* that the problem of financing the economic development of the countries in the process of development is fundamental to the maintenance of the peace of mankind, and that, therefore, high priority should be give to the consideration of its practical solutions in international economic relations;

3. *Considering:*

(*a*) That such measure should allow for the influence of the terms of trade of the countries supplying primary commodities on their economic development;

(*b*) That the urgent and satisfactory solution of this problem requires the full utilization of all sources of financing, among which the ability to obtain adequate and stable proceeds from exports is one of the most important for all underdeveloped countries;

(*c*) That, without prejudice to the international and national measures already recommended for financing economic development, special attention ought to be given to the correction of maladjustments resulting from cyclical fluctuations in the prices of individual primary commodities and secular movements in their value as a group in terms of manufactured goods;

(*d*) That the economic prosperity of countries in the process of development is especially vulnerable to the wide short-run fluctuations in the prices of primary commodities which affect their terms of trade, and that any deterioration in the terms of trade affects the economic development and monetary equilibrium of these countries and so hampers not only the formation of sufficient domestic savings but also the acquisition of the necessary amounts of external means of payment;

(*e*) That the implementation of plans of integrated economic development contributes to mitigrate the consequences of such fluctuations or of any deterioration in the terms of trade;

(*f*) That in order to make such programs possible it is necessary both for the highly industrialized nations and for the nations in the process of development to encourage the formation of appropriate domestic savings in the latter;

4. *Recommends* to Member States that:

(*a*) Whenever governments adopt measures affecting the prices of primary commodities entering international trade, they should duly consider the effect of such measures on the terms of trade of countries in the process of development, in order to ensure that the prices of primary commodities remain in an adequate, just and equitable relation to the prices of capital goods and other manufactured articles so as to permit the more satisfactory formation of domestic savings

[1] Incorporates the amendments contained in A/C.2/L.169/Rev.1, A/C.2/.176, A/C.2/L.174, and A/C.2/L.175, accepted by the sponsor at the 213th meeting, and some of the amendments in A/C.2/L.177 accepted subsequently to that meeting.

in the countries in the process of development and to facilitate the establishment of just wage levels for the working population of these countries with a view to reducing the existing disparity between their standards of living and those in the highly industrialized countries;

(*b*) Without prejudice to the recommendation contained in (a), their governments should give serious consideration to all other aspects of the problem of undue fluctuations of the terms of trade;

(*c*) Their governments should refrain, unless unavoidably required by national security in times of war and without prejudice to technological research and progress, from encouraging the production of any synthetic or substitute materials that unnecessarily affect the international demand for natural primary commodities;

(*d*) Their governments should intensify their efforts to reduce restrictions on imports of primary commodities;

5. *Recomends* that governments should co-operate in establishing multilateral international arrangements relating to primary commodities for the purpose of—

(*a*) Ensuring the stability of the prices of the said commodities in keeping with a reasonable, fair and equitable relationship between these prices and those of capital goods and other manufactured articles, and

(*b*) Safeguarding the continuity of the economic and social progress of all countries, those producing as well as those consuming such raw materials;

6. *Recommends* that the countries in the process of development should adopt and give effect to national programmes of integrated economic development conducive to the rational utilization of the proceeds of their primary activities, the absorption of their surplus active population and the improvement of their standards of living;

7. *Requests* the Secretary-General to include in the study being prepared in compliance with resolution 427 (XIV) of the Economic and Social Council and estimate of the financial repercussions which changes in the terms of trade in primary commodities and capital goods and other manufactured articles produce on the national income of countries in the process of development, and an analysis of the distribution of that income;

8. *Further requests* the Secretary-General to appoint a small group of experts of recognized authority on the subject to prepare, during 1953, a report on such practical measures as it may be advisable to adopt pursuant to the recommendations contained in paragraphs 4 (a), 4 (b), 5 and 6 of this resolution, the report to be issued on the responsibility of the group of experts and to be transmitted to the governments members of the Economic and Social Council;

9. Further, and lastly, requests the Secretary-General to place at the disposal of the group of experts mentioned in the preceding paragraph the records of the discussions held on this item at the seventh regular session of the General Assembly.

GENERAL ASSEMBLY—SESSION—ROLLCALL FORM

Plenary meeting ---------- Date: Nov. 29, 1952.
Committee 2. Time ---------
Question at issue: Argentina Resolution as a Whole.

	Yes	No	Abstain		Yes	No	Abstain
Afghanistan	X			Israel			X
Argentina	X			Lebanon			
Australia		X		Liberia	X		
Belgium		X		Luxembourg		X	
Bolivia	X			Mexico	X		
Brazil	X			Netherlands		X	
Burma	X			New Zealand		X	
Byelorussian S. S. R.			X	Nicaragua			
Canada		X		Norway		X	
Chile	X			Pakistan		X	
China			X	Panama			
Colombia	X			Paraguay	X		
Costa Rica	X			Peru	X		
Cuba	X			Philippines	X		
Czechoslovakia			X	Poland			X
Denmark		X		Saudi Arabia	X		
Dominican Republic	X			Sweden		X	
Ecuador	X			Syria			
Egypt	X			Thailand			
El Salvador	X			Turkey		X	
Ethiopia	X			Ukrainian S. S. R.			X
France		X		Union of South Africa		X	
Greece		X		Union of Soviet Socialist Republics			X
Guatemala	X			United Kingdom		X	
Haiti			X	United States		X	
Honduras	X			Uruguay	X		
Iceland				Venezuela	X		
India	X			Yemen			
Indonesia	X			Yugoslavia	X		
Iran	X						
Iraq	X						

[Yearbook of the United Nations]

(c) QUESTION OF THE ESTABLISHMENT OF FAIR PRICES FOR PRIMARY COMMODITIES

The Second Committee also had before it at its 214th to 222nd meetings from 19 to 29 November a draft resolution by Argentina (A/C.2/L.162 and Corr. 1 and 2) on financing of economic development through the establishment of fair and equitable international prices for primary commodities and through the execution of national programmes of integrated economic development. The operative part of this draft resolution provided that the General Assembly should recommend to Member States that:

"4. * * * (*a*) Whenever governments adopt measures affecting the prices of primary commodities entering international trade, they should duly consider the effect of such measures on the terms of trade of countries in the process of development, in order to ensure that the prices of primary commodities remain in an adequate, just, and equitable relation to the prices of capital goods and other manufactured articles so as to permit the more satisfactory formation of domestic savings in the countries in the process of development and to facilitate the establishment of just wage levels for the working population of these countries with a view to reducing the existing disparity between their standards of living and those in the highly industrialized countries;

"(*b*) Their governments should refrain, unless unavoidably required by national security in times of war and without prejudice to technological research and progress, from encouraging the production of any synthetic or substitute materials that unnecessarily affect the international demand for natural primary commodities;

"(*c*) Their governments should intensify their efforts to reduce restrictions on imports of primary commodities."

It would also recommend that countries in the process of development should give effect to national programmes of integrated economic development conducive to the rational utilization of the proceeds of their primary activities, the absorption of their surplus active population and the improvement of their standards of living.

The draft resolution would also ask the Secretary-General:

"(i) to include in the study being prepared in compliance with Council resolution 427 (XIV) an estimate of the financial repercussions which changes in the terms of trade in primary commodities and capital goods and other manufactured articles produce on the national income of countries in the process of development and an analysis of the distribution of that income; and (ii) to appoint a small group of experts of recognized authority to prepare, during 1953, a report on practical measures which might be adopted pursuant to the recommendations contained in the draft resolution, the report to be issued on the responsibility of the group of experts and to be transmitted to the members of the Economic and Social Council."

A number of representatives, among them those of Australia, Belgium, Canada, China, France, the Union of South Africa, the United Kingdom, and the United States, while to some extent agreeing in principle with the draft resolution, opposed it on practical grounds as too general in scope and open to dangerous interpretations.

Among their objections were:

(1) that a system of international parity prices such as that implied in the draft could not be instituted unless foreign trade were controlled by the State; (2) that such a system would make the economic structure more rigid and would not be conducive to increased productivity; (3) that there were no objective criteria for determining an "adequate, just and equitable" relationship between prices of primary commodities and those of capital and other manufactured goods; and (4) that it would be better to deal with the problem through individual commodity agreements as the need arose.

They also objected to the recommendation that governments should not encourage the manufacture of synthetic or substitute materials. Such action, they held, would harm the interests of both underdeveloped and industrialized countries; it would also stand in the way of progress, from which all in the long run, would benefit. The latter point was also made by the representatives of Cuba, Ecuador, and Peru.

The draft resolution was supported, with certain minor changes, by Bolivia, Burma, Chile, Colombia, Indonesia, and Mexico. At the 219th meeting of the Committee on 25 November the representative of Argentina presented a revised text (A/C.2/L.162/Rev. 2) in which he had incorporated the substance of the following amendments:

"*A joint amendment by Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua* which, in its revised form (A/C.2/L.169/Rev.1), in addition to minor changes in the preamble, proposed to add a paragraph recommending that governments conclude international agreements relating to primary commodities for the purpose of: (i) ensuring the stability of prices of these commodities in keeping with a reasonable, fair, and equitable relationship between these prices and those of capital goods and other manufactured articles; and (ii) of safeguarding the continuity of the programmes of economic and social development of the countries which produce such raw materials. (The sponsors of this amendment had previously accepted two amendments by Indonesia (A/C.2/L.176): (i) to recommend that governments "co-operate in establishing multilateral arrangements" instead of "conclude international agreements" and (ii) to make clear that consumer as well as producer countries would benefit from the stability of prices of primary products.)

"*Amendments by Indonesia* (A/C.2/L.175) which would: (i) recommend that governments study all factors causing fluctuation in terms of trade; (ii) indicate in more general terms the impact of price and terms of trade fluctuations on economic life; and (iii) indicate that price fluctuations might affect the implementation of economic development and terms of trade, but would not do so automatically.

"An *amendment by Chile* (A/C.2/L.174) to add a paragraph concerning the transmittal of the records of the discussion on the item to the group of experts provided for in the draft resolution.

"A *Brazilian amendment* (A/C.2/L.177) designed primarily to clarify the text and to make a distinction between 'cyclical fluctuations in the prices of individual primary commodities and secular movements in their value as a group in terms of manufactured goods'."

The representatives of Chile, Costa Rica, the Dominican Republic, Egypt, Liberia, the USSR and Yugoslavia, among others, supported the draft resolution thus revised.

The representative of France considered that the revised draft resolution called on certain governments for a commitment too general in scope for it to be acceptable; he therefore submitted a series of amendments (A/C.2/L.179) aimed at reaching a compromise solution. These proposed, among other things, deletion of the reference to the establishment of relationships between the prices of primary commodities and of capital and other manufactured goods.

This amendment, as well as a Greek amendment (A/C.2/L.173) which would call on governments to consider concluding intergovernmental agreements for individual commodities, was withdrawn following the presentation of an eleven-power joint amendment (A/C.2/L.181 and Corr.1) drawn up by an unofficial working group. This group, set up on 26 November, was composed of Australia, Belgium, Canada, Denmark, France, Greece, the Netherlands, New Zealand, Norway, Sweden and the United Kingdom.

The representative of Argentina stated that he had no objection to the first two amendments which were concerned with form. However, he considered the rest inacceptable since, in his opinion, they were inconsistent with the spirit of the resolution and in some instances introduced totally new ideas. The following amendments of the joint proposal were voted on at the 222nd meeting of the Committee on 29 November and rejected as follows:

"(i) By 20 votes to 20, with 11 abstentions, an amendment to specify that *continuing* attention ought to be given to the *effects* of cyclical fluctuations rather than *special* attention *to the correction of maladjustments resulting from* cyclical fluctuations.

"(ii) By a roll-call vote of 30 to 16, with 8 abstentions, an amendment to state that short-run fluctuations in the prices of primary commodities might (rather than did) affect terms of trade, and that any deterioration in the terms of trade might (rather than did) hamper the formation of domestic savings and the acquisition of external means of payment.

"(iii) By a roll-call vote of 31 to 15, with 8 abstentions, to replace paragraph (*f*) (see below) with a provision to state that the implementation of integrated economic development programmes could be facilitated by encouraging savings in both highly industrialized countries and those in the process of development, and by making such savings available for economic development.

"(iv) By a roll-call vote of 22 to 19, with 13 abstentions, a new paragraph to specify that one of the objectives of such programmes is to facilitate the establishment of just living wage levels for the working populations with a view to reducing disparities between their standards of living and those of highly industrialized countries.

"(v) By a roll-call vote of 32 to 16, with 7 abstentions, an amendment to delete the paragraph concerning price relationships (paragraph 1(*a*) as adopted, see below) and to recommend instead that, whenever governments contemplate measures designed to influence the prices of primary commodities entering international trade, they should duly consider how they might minimize any possible adverse effects which such measures might have on the terms of trade of countries in the process of development, particularly the ability of those countries to finance the purchasing of capital goods and other manufactured articles.

"(vi) By roll-call vote of 35 to 16, with 4 abstentions, a proposal to delete the paragraph referring to other aspects of undue fluctuations (paragraph 1(*b*) as adopted, see below).

"(vii) By a rollcall vote of 29 to 16, with 10 abstentions, an amendment to replace the recommendations to governments concerning the establishment of multilateral international agreements (paragraph 2 as adopted, see below), with a paragraph recommending that, without prejudice to the principle specified in amendment (v) (see above), governments should give serious consideration to all other aspects of the problem of undue fluctuations in the terms of trade, including the possibility of co-operating in the establishment of multilateral agreements relating to individual primary commodities."

In view of the acceptance of the Indian amendment (A/C.2/L.182) (see below), the sponsors withdrew a proposal that the Secretary-General should study the impact of selected synthetic products on the demand for natural primary products entering international trade.

An amendment by Denmark, Norway and Sweden (A/C.2/L.180) which would refer the problems raised in the draft resolution to the Council instead of to a group of experts was rejected by 27 votes to 17, with 7 abstentions.

An amendment by Brazil (A/C.2/L.183) recommending that governments co-operate in establishing multilateral as well as bilateral arrangements for

individual primary products and for groups of primary commodities and manufactured goods was adopted by roll call by 27 votes to 13, with 15 abstentions.

The representative of Argentina accepted an oral clarifying amendment by Indonesia and an Indian amendment (A/C.2/L.182) to delete the reference to the production of synthetic materials and call instead for a study of the subject. The Indian amendment was subsequently voted on and adopted by 36 votes to none, with 18 abstentions.

The draft resolution (A/C.2/L.162/Rev. 2), as amended, was adopted at the Committee's 222nd meeting in paragraph-by-paragraph votes ranging from 29 to 14, with 11 abstentions, to 41 to none, with 13 abstentions.

The draft resolution as a whole was adopted (A/2332 (III)) by a roll-call vote of 29 to 16, with 9 abstentions. (For text see below.)

(2) Consideration by the Fifth Committee

The Fifth Committee, at its 372nd meeting held on 10 December 1952, considered the financial implications of the resolution proposed by the Second Committee concerning the financing of economic development through the establishment of fair and equitable international prices for primary commodities and through the execution of national programmes of integrated economic development (A/2332 (III), see above). It had before it a statement of estimated financial implications prepared by the Secretary-General (A/C.5/532), together with a report from the Advisory Committee on Administrative and Budgetary Questions (A/2299).

According to the estimates submitted by the Secretary-General, $13,100 would be required in 1953 and $1,050 in 1954. However, he would only request a supplementary provision of $11,000 for 1953 to cover travel and subsistence of the experts to be appointed, since the printing costs could be absorbed within the amount already approved. Should it prove necessary to pay fees to some of the experts, the Secretary-General would try to absorb the additional cost within the proper section of the budget. In the event of there being no funds available within this section he would ask the Advisory Committee to consider transferring funds from another section.

The Advisory Committee, in its report, recommended a reduction of $1,750 on the ground that a period of six weeks, instead of eight weeks on which the Secretary-General's estimate had been based, constituted, in its opinion, the maximum time which "experts of recognized authority" would conveniently devote to work outside their normal duties.

Several representatives, among them those of Argentina and Brazil, questioned whether the work to be undertaken by the experts could be satisfactorily completed within the shorter period recommended, and therefore considered that the estimates as submitted by the Secretary-General should be maintained. Other representatives, among them the representative of the United States, were of the opinion that, given adequate preparatory work on the part of the Secretariat, the experts should have no serious difficulty in completing their assignment within a six-week period. An assurance was given on behalf of the Secretary-General that, should the six-week period prove inadequate, every effort would be made to find such additional funds as might be required within the total for section 3, failing which the Advisory Committee could, no doubt, be relied upon to give sympathetic consideration to any necessary transfer of funds from other sections of the budget.

Subject to this understanding, the Fifth Committee, on the proposal of the Chairman, decided by 14 votes to 9, with 15 abstentions, to inform the Assembly that adoption of draft resolution III proposed by the Second Committee would involve a supplementary appropriation of $9,250 (A/2338).

(3) Resolutions adopted by the General Assembly

The General Assembly considered the report of its Second Committee (A/2332) at its 411th plenary meeting on 21 December 1952. It also had before it the report of the Fifth Committee on the financial implications of resolution A/2332 (III). Sections A and B of the draft resolution on financing, as proposed by the Second Committee (A/2332 (II)), were each adopted by 52 votes to none, with 5 abstentions, and Section C by 50 votes to none, with 6 abstentions (resolution 622 (VII)). The representative of the USSR explained his abstention on the basis of views he had expressed in the Committee. The representatives of Colombia and Saudi Arabia stated that they would vote for the resolutions.

Following the adoption by 34 votes to 3, with 16 abstentions, of the paragraph referring to a study of synthetic substances, the draft resolution concerning financing through the establishment of price parities and national programmes of

integrated economic development (A/2332 (III)) was adopted, as a whole, by a rollcall vote of 35 to 15, with 9 abstentions (resolution 623 (VII)) as follows:

In favour: Afghanistan, Argentina, Bolivia, Brazil, Burma, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Guatemala, Honduras, India, Indonesia, Iran, Iraq, Israel, Liberia, Mexico, Nicaragua, Panama Paraguay Peru, Philippines, Saudi Arabia, Syria, Thailand, Uruguay, Venezuela, Yemen, Yugoslavia.

Against: Australia, Belgium, Canada, Denmark, France, Iceland, Luxembourg, Netherlands, New Zealand, Norway, Pakistan, Sweden, Union of South Africa, United Kingdom, United States.

Abstaining: Byelorussian SSR, China, Czechoslovakia, Greece, Haiti, Poland, Turkey, Ukrainian SSR, USSR.

The representatives of Argentina, France, Indonesia and the United Kingdom, in explaining their votes, expressed views similar to those they had already put forward in the Committee. The representative of Saudi Arabia considered that the resolution would result in positive benefits and therefore voted in its favour. The USSR representative stated that, while he supported those proposals designed to promote the development of a national and independent economy and of civilian industry in the underdeveloped countries, he had abstained on the resolution as a whole.

The resolution adopted by the Assembly read:

"*The General Assembly,*

"*Taking into account* the relevant passage of General Assembly resolutions 307 (IV), 403 (V), 404 (V), 521 (VI) and 523 (VI), of Economic and Social Council resolutions 341 (XII), 416 F (XIV) and 427 (XIV), as well as the suggestions of the group of experts appointed in pursuance of Council resolution 290 (XI),

"*Recognizing* that the problem of financing the economic development of countries in the process of development is fundamental to the maintenance of the peace of mankind, and that, therefore, high priority should be given to the consideration of its practical solution in international economic relations,

"*Considering:*

"(*a*) That the urgent and satisfactory solution of this problem requires the full utilization of all sources of financing, among which the ability to obtain adequate and stable proceeds from exports is one of the most important for all under-developed countries,

"(*b*) That, in formulating measures for financing economic development, consideration should be given to the influence on their economic development of the terms of trade of the countries supplying primary commodities,

"(*c*) That, without prejudice to the international and national measures already recommended for financing economic development, special attention should be given to the correction of maladjustments resulting from cyclical fluctuations in the prices of individual primary commodities and from secular movements in their value as a group in terms of manufactured goods,

"(*d*) That the economic prosperity of countries in the process of development is especially vulnerable to wide short-term fluctuations in the prices of primary commodities which affect their terms of trade, and that any deterioration in the terms of trade affects the economic development and monetary equilibrium of these countries and so hampers not only the acquisition of the necessary amounts of external means of payment but also the formation of sufficient domestic savings,

"(*e*) That the implementation of plans of integrated economic development contributes to the mitigation of the consequences of such fluctuations or of any deterioration in the terms of trade,

"(*f*) That in order to make such programmes possible it is necessary both for the highly industrialized nations and for the nations in the process of development to encourage the formation of appropriate domestic savings in the latter,

"1. *Recommends* to Member States that:

"(a) Whenever governments adopt measures affecting the prices of primary commodities entering international trade, they should duly consider the effect of such measures on the terms of trade of countries in the process of development, in order to ensure that the prices of primary commodities are kept in an adequate, just and equitable relation to the prices of capital goods and other manufactured articles so as to permit the more satisfactory formation of domestic savings in the countries in the process of development and to facilitate the establishment of fair wage levels for the working populations of these countries with a view to reducing the existing disparity between their standards of living and those in the highly industrialized countries;

"(*b*) Without prejudice to the recommendation contained in sub-paragraph (*a*) above, their governments should give serious consideration to all other aspects of the problem of undue fluctuations in the terms of trade;

"(*c*) Their governments should intensify their efforts to reduce restrictions on imports of primary commodities;

"2. *Recommends* that governments co-operate in establishing multilateral as well as bilateral international agreements or arrangements relating to individual primary commodities as well as to groups of primary commodities and manufactured goods, for the purpose of:

"(*a*) Ensuring the stability of the prices of the said commodities in keeping with an adequate, just and equitable relationship between these prices and those of capital goods and other manufactured articles;

"(*b*) Safeguarding the continuity of the economic and social progress of all countries, those producing as well as those consuming raw materials;

"3. *Recommends* that the countries in the process of development should adopt and give effect to national programmes of integrated economic development conducive to the rational utilization of the proceeds of their primary activities, the absorption of their surplus active population and the improvement of their standards of living;

"4. *Requests* the Secretary-General to include in the study being prepared in compliance with Economic and Social Council resolution 427 (XIV) an estimate of the financial repercussions which changes in the terms of trade between primary commodities and capital goods and other manufactured articles produced on the national incomes of countries in the process of development, and an analysis of the distribution of those incomes;

"5. *Further requests* the Secretary-General to prepare, for submission to the Economic and Social Council and to the General Assembly, a study on the impact of important synthetic products on the demand for natural primary products entering international trade;

"6. *Further requests* the Secretary-General to appoint a small group of experts of recognized authority on the subject to prepare, during 1953, a report on such practical measures as it may be advisable to adopt pursuant to the recommendations contained in subparagraphs (*a*) and (*b*) of paragraph 1, and in paragraphs 2 and 3 of the present resolution, the report to be issued on the responsibility of the group of experts and to be transmitted to the General Assembly together with the Economic and Social Council's views thereon;

"7. *Further requests* the Secretary-General to place at the disposal of the group of experts mentioned in the preceding paragraph the records of the discussions on this item during the seventh session of the General Assembly."

Under item No. 4, it recommends to member states that:

(a) Whenever governments adopt measures affecting the prices of primary commodities entering international trade, they should duly consider the effect of such measures on the terms of trade of countries in the process of development in order to insure that the prices of primary commodities remain in an adequate, just, and equitable relation to the prices of capital goods and other manufactured articles so as to permit the more satisfactory formation of domestic savings in the countries in the process of development and to facilitate the establishment of just wage levels for the working population of these countries with a view to reducing the existing disparity between their standards of living and those in the highly industrialized countries.

Now, (c) reads:

Their governments should refrain, unless unavoidably required by national security in times of war and without prejudice to technological research and progress, from discouraging the production of any synthetic or substitute materials that unnecessarily affect the international demand for natural primary commodities.

And here we were under the impression all the time that whenever you could produce a synthetic material that would serve as a substitute for a critical material that is needed in time of war, and not require transport across major oceans in time of war, we were doing the right thing. This is really informative.

Under 5 (a):

Insuring the stability of the prices of the said commodities in keeping with a reasonable, fair, and equitable relationship between these prices and those of capital goods and other manufactured articles—

and under No. 8:

Further requests the Secretary General to appoint a small group of experts of recognized authority on the subject to prepare, during 1953, a report on such practical measures as it may be advisable to adopt pursuant to the recommendations contained in paragraphs 4 (a), 4 (b), 5, and 6 of this resolution, the report to be issued on the responsibility of the group of experts and to be transmitted to the governments' members of the Economic and Social Council.

Senator MALONE. I am also inserting in the record a clipping from the Washington Times-Herald of November 30, 1952.

[From the Washington Times-Herald, November 30, 1952]

U. N. GROUP O. K.'S PRICE FIXING ON RAW MATERIALS

(By Chesly Manly)

NEW YORK, November 29 (CTPS).—Ganging up against the United States, Latin America, Asian and African countries in the United Nations Economic and Financial Committee today approved an Argentine resolution calling for an international price fixing scheme for the benefit of nations producing raw materials.

The object of the resolution is to force the United States, the world's foremost consumer of raw materials, to pay more for its imports of primary commodities. Opponents of the scheme said it would require rigid Government controls not only on international trade but on domestic economies as well, and therefore would produce socialism or some other form of totalitarianism on a global scale.

THREE VOTES NEEDED

The committee approved the resolution by a vote of 29 to 16 with 9 abstentions. Unless Argentine can round up 3 more votes from the 6 countries that were absent today, the resolution probably will fail to receive the two-thirds majority for its approval by the General Assembly.

Senator MALONE. It is a New York dispatch, by Chesly Manly, and the heading is: "U. N. Group O. K.'s Price Fixing on Raw Materials."

Ganging up against the United States, Latin America,—

this is 1952, November 30—

Asia and African countries in the United Nations Economic and Financial Committee today approved an Argentine resolution calling for an international price fixing scheme for the benefit of nations producing raw materials.

When the Economic and Social Council met in New York in April, they had Dr. Knorr's report, Commodity Trade and Economic Development, before it. This report is appendix 1 and has already been made a part of the record.

The Council also had three other documents before it (see appendix 1, p. 127). I shall make these documents a part of the record. They are identified as follows:

Appendix 2 is "Economic Development of Underdeveloped Countries, Impact of Selected Synthetics on Demand for Natural Products in International Trade, No. E/2438, a study by the Secretariat, May 29, 1953," presumably to show what a harmful thing synthetic production can be in the field of international trade. (See appendix 2, p. 231.))

Appendix 3 is "Economic Development of Underdeveloped Countries, Relative Prices of Primary Products and Manufactures in International Trade—Report by the Secretary-General. United

Nations Document No. E/2455 dated June 8, 1953." (See appendix 3, p. 269)

Appendix 4 is "Economic Development of Underdeveloped Countries, Repercussions of Changes in Terms of Trade on the Economies of Countries in Process of Development—Report by the Secretary-General. United Nations Document No. E/2456 dated June 11, 1953." (See appendix 4, p. 375.)

In connection with appendix 2, which is the United Nations document on synthetics, I believe the authorization of such a study poses a serious problem, as it permits the United Nations to act as a bar to technical programs and scientific advancement. The United Nations has been proposing steps to stabilize commodity trade, while at the same time it has been sponsoring studies to eliminate restrictive business practices; that is, cartels. It is difficult to see how we can proceed in both directions at once.

A rubber study commission has just concluded another meeting. I shall insert in the record a New York Times dispatch from Colombo, dated May 11, 1954, which indicates the thinking of the so-called underdeveloped countries.

It is dated May 12, 1954, Colombo, Ceylon, entitled: "U. S. Gets New Plea on Rubber Prices. Special to the New York Times."

Representatives of natural rubber producing countries asked the United States again today to increase the price of synthetic rubber.

Members of the International Rubber Study Group, whose conferences ended here today, expressed concern about the price relationship between natural rubber and the cheaper synthetic. This difference, growers declared, was of vital importance, especially to countries mainly dependent on natural rubber exports.

The United States delegate undertook to convey these views to his Government but emphasized he could not support them. He said the outlook for consumption was such that the natural rubber industry could be developed satisfactorily without an artificial or arbitrary increase in the synthetic price.

World production of natural rubber this year would be about 1,705,000 long tons, while production of synthetic in member countries would be about 706,000 tons, the study group estimated.

It was estimated that world consumption would total 1,681,000 tons of natural rubber and 714,000 tons of synthetic, apart from synthetic produced by nonmember countries. The surplus of 16,000 tons of natural and synthetic will be available for Government and commercial stocks.

The Rubber Disposal Act, passed by the 83d Congress, provides that the synthetic rubber plants must be disposed of in such a manner as to preserve a competitive industry within the United States with the price of synthetic rubber determined by the competition of the producers.

It should be remembered, Mr. Waugh, that when we had no synthetic rubber, the price of rubber always took what the traffic would bear. We can remember when it went to a dollar a pound. And still the rubber-producing countries recommend that we not compete.

Now, Mr. Secretary, the Chairman considered it necessary to lay that foundation. I am sure that even now members of the State Department are not aware fully of the long-range plans that have been made to control the domestic economy of the United States through the United Nations and other sources, and to do this job, whether or not the Congress of the United States approves.

Will you give us the benefit of your comment on the position of the State Department as to its future action and participation in this Permanent Advisory Commission on International Commodity Trade,

in view of the fact that the governments of the member states, the Economic and Social Council, are to transmit their views concerning their participation in the Commission before the 18th session of the Council which opens in Geneva in July?

STATE DEPARTMENT ATTITUDE ON PERMANENT ADVISORY COMMISSION

Mr. WAUGH. My thinking, Mr. Senator, is that the position taken in New York at the Ecosoc——

Senator MALONE. At the what?

Mr. WAUGH. At the meeting in New York of the Ecosoc you mentioned.

Senator MALONE. Spell it out.

Mr. WAUGH. Pardon me. I thought you used that.

Senator MALONE. I read it; yes.

Mr. WAUGH. I am not familiar with them either.

Senator MALONE. No one is, except that people some place are working this out.

Mr. WAUGH. The position will be the same as taken by Mr. Hotchkis and as read into the record by you.

Senator MALONE. In other words, you will oppose it?

Mr. WAUGH. It is my understanding that that will be the position, of course. There has been no change in that.

Senator MALONE. Well, you understand from the record, and we really have devoted a considerable amount of time through our staff to this study, that the State Department was behind it all in the beginning, made the original suggestions. You understand that, do you not?

Mr. WAUGH. No; I don't think that is quite a fair statement, Senator.

Senator MALONE. I am not talking about your administration.

Mr. WAUGH. I appreciate that. I know you are not. But I think that statement is a little too broad, sir.

Senator MALONE. How would you interpret it? What was their idea in bringing it up in the beginning?

Mr. WAUGH. Well, I can't say about that. I think the idea about bringing it up in the beginning, as far as what I have learned in the past year is concerned, was the desire on the part of the underdeveloped countries to obtain some stability in their market for raw materials.

Senator MALONE. Will you tell me just who profits from these underdeveloped countries in their price stability for raw materials, for the benefit of the record?

Mr. WAUGH. I think the whole free world does.

Senator MALONE. Give us a little more information on that, if you have it.

Mr. WAUGH. Now I am expressing a purely personal opinion.

Senator MALONE. Well, your personal opinion carries considerable weight, I suppose, over there in the State Department.

Mr. WAUGH. They get into the political field, sir.

Senator MALONE. Let's get into it.

Mr. WAUGH. I feel that the underdeveloped countries are susceptible to infiltration from a form of government that is inconsistent with our own, and I think it is the policy of the administration that

I came in here to serve that whatever assistance we could give these people in the underdeveloped countries to enable them to make a contribution to the defense of the free world, and not to be absorbed by any other form of government or ideology, is a basic concept that we should follow.

Senator MALONE. Are you referring now to areas like Indochina and the Malayan States and others of like character?

Mr. WAUGH. I was thinking more specifically of the recent meeting I returned from in South America, at Venezuela, and I had in the back of my mind the experience I had last year in India at the Colombo plan meeting.

At the Colombo plan meeting, there were 19 countries represented, and by a coincidence there were 19 countries other than our own represenated at the Tenth Inter-American Conference at Venezuela last month, all Central and South American countries with the exception of Costa Rica.

Senator MALONE. What is it these nations have produced that you mentioned that you want to stabilize at our expense?

Mr. WAUGH. Wait just a minute, Senator. I didn't say it was to be stabilized at our expense.

Senator MALONE. Whose expense do you think it would be, if we guaranteed a stable price and did not produce the rubber here that we can, and other synthetics, and natural products?

Mr. WAUGH. First, I have never advocated, and I do not now, the creation of an artificial price, wherein we make the payments, nor have I even been in favor of a discontinuance of the synthetic rubber plants in this country.

Personally, I have been in favor of the Government getting out of the synthetic rubber plant business and disposing of them to private industry, which was the will of your Congress.

Senator MALONE. Are you willing to submit to the will of Congress and not promote anything in the United Nations that Congress does not adopt?

Mr. WAUGH. Mr. Senator, I think it is absolutely necessary for the Department of State to submit to the will of Congress. I think that is our obligation and our desire.

Senator MALONE. The record does not show it up to date, except this refusal, now, as to going along with this new alphabetical organization, the Permanent Advisory Commission on International Commodity Trade. We voted against that, and it is a good sign. But up to then, we had continually, as the record shows, proceeded, through various trick organizations, with financing from sources other than that intended by Congress, to keep these organizations alive that were not only not adopted by Congress but refused.

Mr. WAUGH. I would like to say, sir, that I think as far as I am concerned, I ought to limit my comments, other than my personal observations, to what has happened since January 20, 1953, the date the new administration took over. I think that is only fair; don't you?

Senator MALONE. I think it is. That is the reason why I asked if you had studied the history of this.

Mr. WAUGH. Yes, I have.

Senator MALONE. Do you understand what appears to be a deliberate attempt to involve us in all this material? You do understand that

there is a deliberate attempt here over a period of years to involve us in these organizations, make us responsible?

Mr. WAUGH. Well, Senator Malone, I am afraid the connotation that you have used there "involved us," isn't quite fair.

Senator MALONE. What word would you use?

Mr. WAUGH. After all, the United States Senate voted that the United States of America should join the United Nations by a vote of 89 to 2.

Senator MALONE. Do you think they understood that their prices of all commodities were going to be fixed through the United Nations?

Mr. WAUGH. I don't think they ever will be, sir.

Senator MALONE. They certainly will be if we don't pay attention to our business.

Mr. WAUGH. We are certainly trying to pay attention to our business to that very effect, and I think we have demonstrated that during this calendar year in our actions.

Senator MALONE. I think you have, and you have my congratulations, and we have your assurance that you will continue to vote against it.

Mr. WAUGH. I would rather not go into the historical background, because it brings up recriminations, which, as far as the present administration is concerned, I don't think we will profit by.

Senator MALONE. You might profit to the extent of understanding how these things are proposed and how narrow our escape has been.

Mr. WAUGH. Well, of course, I believe we should always study the records and know what has gone on before. But I think our present policy is the policy that I have to be responsible for and answerable for, and to that extent I am perfectly willing to discuss it, of course.

Senator MALONE. Now, in these countries like Indochina, the Malayan States, Algeria, French West Africa, and all of these other underdeveloped countries, who profits by the development and the fixing, we will say, if they do get together with an international cartel arrangement without us and stabilize prices? What areas profit by that arrangement?

Mr. WAUGH. I would like to answer the question the same as I did before. I think the whole free world stands to profit by it.

Senator MALONE. Now, Mr. Secretary, I am glad that you have made it clear, as far as this administration is concerned, that we are going no further in any discussions as to any cartel arrangements, and we are entering into none of them. You have said that, haven't you?

Mr. WAUGH. I couldn't honestly say that, sir.

Senator MALONE. You said you were not going with this organization.

Mr. WAUGH. I can not honestly say with reference to the actions of Congress with respect to the international agreements we now have.

Senator MALONE. Some of them have been turned down, and I must admit the wheels have been greased pretty well. None of them have been successful. The wheat agreement I think you can study with a great deal of profit.

Mr. WAUGH. And the sugar agreement?

Senator MALONE. Yes, and the sugar agreement. We will give that a little time, and it will fail, too. You will remember that England didn't join in the wheat agreement.

Mr. WAUGH. I appreciate that.

Senator MALONE. Because economically they could benefit by not doing so.

Mr. WAUGH. But I would like to go on by saying that so far as rubber and tin are concerned, in this administration, in connection with the report you just read from the New York Times, the activity of the Department of State in representing American industry at this meeting and demonstrating the fact that they were representing American industry in not complying with the request of the producing nations merely on a price-raising situation, has received a great deal of praise from the industrialists in the rubber business who were at that meeting and who have been working with the State Department for the last 14 or 15 months on it.

Senator MALONE. We have given you our blessing, too, in staying out of this thing. But it is the first record of us staying out of anything that we have ever had, for your information.

Now, if we don't participate in this thing officially, do you think there will be any indirect blessing from the State Department to go ahead and control these materials?

Mr. WAUGH. I do not think that this Advisory Commission on International Commodity Trade will have the effect of controlling the materials. I think it will have the effect of studying the problem. And to that extent, I would much rather have Dr. Knorr talk, because I think that is in his field, because he has been working on it. I am just expressing my own view.

Senator MALONE. In 1947, I was in England, visited most of the European nations and the Ruhr, Germany, and examined into a good many of the industries, coal mines, steel mills, chemical plants, in various countries. And in Birmingham, England, before going into the coal mines, I talked to Sir Ben Smith, who was in charge of coal production in that area. You will find this in the Congressional Record of 1948, I believe. Several things he told me at that time are beginning to make a little more sense in the light of the United Nations actions.

He finally, with a note of reluctance in his voice, said that the sterling bloc countries controlled three-fourths of the raw materials of the world, and if necessary they could stop shipments. Now it begins to connect.

Mr. WAUGH. I don't think what he said has been demonstrated to be a fact. I can't see that. Since 1947.

Senator MALONE. You may not be able to see it, but if we had entered into this last agreement, as we apparently blindly entered into all the rest, they apparently could do that.

Mr. WAUGH. I was thinking of Great Britain's control as mentioned.

Senator MALONE. Did you ever study the relationship of the sterling bloc countries to other European countries that also control areas? It would be good for you to do that.

Mr. WAUGH. I have never added them.

Senator MALONE. I did, and there were about 54 of them. And the sun doesn't set on them. The United Kingdom together with Belgium, the Netherlands, and France, in combination, and if we are able, with our military power, to hold the world's status quo, with the colonies they now have, Sir Ben Smith didn't miss it very much.

Mr. WAUGH. Well, of course, I am taking into consideration, Senator, the possessions they had at that time which have since been given an independent status, which they do not control at this time.

Senator MALONE. I would point out to you, and I know you know it better than I do, that they have a status within the sterling bloc. Most of these nations had all the advertising of being made free agents. You might take India, at the present time, as an example. And all these nations of the sterling bloc have what they call empire preferential rates. Did you ever go into the matter of empire preferential rates?

Mr. WAUGH. Yes, sir.

Senator MALONE. And you know just how these raw material shipments are controlled?

Mr. WAUGH. Yes, sir.

Senator MALONE. Do you understand it?

Mr. WAUGH. Yes, sir.

Senator MALONE. Do you still say they do not control it, after the so-called freedom of these nations?

Mr. WAUGH. I do, sir.

Senator MALONE. I have nothing further to ask you in that regard, because it is so evident that as far as we are concerned they have the edge.

Now, you did decline to sign the tin agreement, and greatly pleased some Members of the Senate, including the chairman of this committee. But we learned that later you advised other countries that you had no objections to their proceeding without us.

I shall make the Department release a part of the record:

> In announcing its decision not to sign the agreement, the United States made it clear that it was aware of the importance attached to the agreement by other governments. Since the agreement can come into force and can be operated without United States participation, the State Department said it did not anticipate that the United Sates decision would prevent the agreement from being effective, and made clear that the United States would not object if other governments decided that this was in their interest.
>
> The Department explained that under the decision not to dispose of the excess tin stocks held or to be acquired by the United States Government, these stocks would be held in insulation. Withdrawals could be made only at the direction of the President, as in the case of regular stockpile materials.

In other words, Mr. Secretary, we have invited other nations to establish a tin cartel, and we are helping them maintain their price by holding admittedly excess tin stocks in the United States.

Will this pattern be followed in other commodities if it is recommended by this new Commission?

Mr. WAUGH. May I give some background in regard to that?

Senator MALONE. Yes. I think it would be helpful. It is 60,000 tons of tin that we are talking about.

Mr. WAUGH. Yes. I would like to make it crystal clear, Senator, that the decision with reference to the tin agreement and the decisions that the Department of State is called upon to negotiate with other countries are not the decisions per se of the Department of State. And I will use this as an example. The decision with reference to signing, whether or not the tin agreement should be signed, was made on a Cabinet level. The Secretary of the Treasury, the Secretary of State, the Secretary of Interior, the Director of FOA, and the Office of Defense Mobilization. That is Mr. Arthur Flemming.

And so this decision not to sign the agreement——

Senator MALONE. Was the RFC consulted? Was the Reconstruction Finance Corporation head consulted in that matter of the tin agreement?

Mr. WAUGH. Yes, sir.

Senator MALONE. I just wanted to make that clear.

Mr. WAUGH. Through Mr. Cravens, but more particularly through the Secretary of the Treasury, Mr. Humphrey.

Senator MALONE. Yes. Now, these men that you have mentioned—I have heard you mention these Departments before—are all supposed to be consulted when the United States goes into any new trade agreement or makes any commitment that supposedly affects the trade of this country?

Mr. WAUGH. I do not believe, sir, you have ever heard me mention the names of these particular men before in any negotiation. I try to emphasize that this decision by the present administration was made on a Cabinet level. The comments that I have made before are in connection with the trade agreements cooperation organization, whatever the name is. The Trade Agreements Committee.

Senator MALONE. The 1934 Trade Agreements Act.

Mr. WAUGH. Where I have discussed it before, I have said representatives of the nine Departments were all there, but I haven't said it has been on a Cabinet level. This is the only decision I know of since I have come in here on an item of this type that has had the benefit of a decision of the Cabinet.

Senator MALONE. Is that necessary, or was it just a matter of discretion with the Secretary of State?

Mr. WAUGH. I think it was necessary, because of the fact that this decision was made at approximately the same time that the President's 17-man Economic Commission made their report, which came out to the effect that they did not look with favor upon international commodity agreements, and this was of sufficient importance not only from the economic standpoint, sir, but it was also vital from the standpoint of the political officers involved in this particular field, and for that reason that decision with reference to the tin agreement was made at the Cabinet level.

Senator MALONE. But it was not necessary to consult them?

Mr. WAUGH. The State Department would never make a decision like this without the concurrence of the representatives of every Department I have mentioned.

Senator MALONE. That is one of the policies of the new administration?

Mr. WAUGH. I don't know about the old policy, but that has been the policy of the new administration.

Senator MALONE. Under what authority are we holding these stocks immune from distribution at any time it might be considered necessary or economically advisable, or on account of our security? On what authority do you make that decision that there will be no interference?

Mr. WAUGH. Under the Defense Production Act, which is authorized by your Congress.

Senator MALONE. It gives you the authority to make deals with other nations that you would not interfere with their market?

Mr. WAUGH. No. It doesn't give me the authority. It doesn't give the State Department the authority.

Senator MALONE. Who does it give it to?

Mr. WAUGH. The control of the defense production, the direction, is under Arthur Flemming.

Senator MALONE. He can make a deal with another nation, then, to withhold any surplus stock that we might have here if he thinks that it would injure the international market?

Mr. WAUGH. I think the law is such that these stocks that are put into the stockpile are only taken out of the stockpile by the law under the direction of the President. But it was insulated by the same rules, that it would not be taken out except at the direction of the President.

Senator MALONE. Now, we went into that situation, and under the direction of the President a market in certain metals was broken in this country. He did not direct that the market be broken, but he directed that the stocks be taken out, and it resulted in the breaking. There is no reason to review that now except in the light of the authority that Mr. Flemming might have.

Now, some of this tin is not in the stockpile, is it?

Mr. WAUGH. I think 60,000 is not in the stockpile.

Senator MALONE. Then does that give you the authority, if it is not in the stockpile, under the Defense Production Act, or does it give it to Mr. Flemming, to manipulate that in any way he sees fit?

Mr. WAUGH. No, it was insulated with the requirement that it would not be taken out except under the same rules as applied to the Defense Production Act.

Senator MALONE. Who insulated it?

Mr. WAUGH. I think the President of the United States, sir.

Senator MALONE. He has that authority under the Strategic and Critical Materials Stockpiling Act, regardless of whether it is in the stockpile or not, to say that it will not be offered for sale if it competes with the foreign markets and might result in our control of the situation?

Mr. WAUGH. Yes.

Senator MALONE. Now, under this international tin agreement, State Department release of March 5, 1954, aide-memoire. This, then, would be a memorandum from the State Department. Is that what it is?

Mr. WAUGH. That is right, sir.

Senator MALONE. March 5, 1954.

Mr. WAUGH. Cleared by all the different agencies that made this decision.

Senator MALONE. And they are the ones that you just mentioned, your Cabinet, almost your entire Cabinet?

Mr. WAUGH. Yes, sir.

Senator MALONE. Then I will read paragraph 3:

At the Geneva Conference, a number of governments expressed interest in the disposition to be made by the United States Government of those tin stocks held and to be acquired in excess of strategic stockpile requirements. This Government has now decided that it will hold these stocks in insulation, and that any withdrawals shall be made only at the direction of the President as in the case of regular stockpile materials.

And they did that by reason of the conference at Geneva. A number of governments agreed that it was necessary.

Mr. WAUGH. No, sir.

Senator MALONE. That is what this said, that at the Geneva Conference a number of governments expressed interest in the disposition to be made by the United States Government of those tin stocks held in excess of the strategic stockpile requirements. In other words, their fear apparently was that if you purchased more tin than you needed in the stockpile, purchased what you thought was needed in the stockpile, and later decided you did not need that much, their sale might affect the international market?

Mr. WAUGH. It would affect the domestic market as well.

Senator MALONE. That is what we want, to affect the domestic market, isn't it, as long as we are not producing any of it? Or are we beyond saving any money for the Government of the United States. This says in so many words, almost, that—

at the Geneva Conference a number of governments expressed interest in the disposition to be made by the United States Government of those tin stocks held and to be acquired in excess of the strategic stockpile requirements.

Now, wasn't it their fear that if you released any tin stocks, whether they were in the stockpile or not, it would affect their international market?

Mr. WAUGH. It affects all markets, the same way that our surplus agricultural products overhanging the market today affect the market today. It is the same situation entirely.

Senator MALONE. All right. I have your answer now that their interest at Geneva was their fear that you would interefere with their price at which they were selling tin on the markets. That was their interest, was it not?

Mr. WAUGH. Yes, sir.

Senator MALONE. It is a very simple matter.

This aide-memoire will be made a part of the record at this point.

AIDE-MEMOIRE

1. The International Tin Agreement, the terms of which were established at Geneva in December, 1953, is open for signature from March 1 to June 30, 1954. The United States Government is aware of the importance attached to the Agreement by a number of governments, and is also aware of the interest shown in the question of whether the United States is prepared to participate. This Government has therefore given prompt and careful consideration to the matter so that other interested governments might be notified of its decision at the earliest time.

2. The United States Government has decided not to sign the Agreement. In making this decision known, however, it wishes to make clear its position if the other governments which participated in the negotiations should decide that it is in their interest to proceed with the Agreement. It is entirely possible for the Agreement, as negotiated, to operate without the participation of the United States, since the Agreement did not provide for contributions by consuming countries to the buffer stock and since any action taken to reduce production to bring it in line with consumption would be taken by the producing countries themselves. The United States therefore does not anticipate that its decision will prevent the Agreement from entering into force and wishes to make clear that it will have no objection to such action if the other governments should decide that it is in their interest.

3. At the Geneva Conference, a number of governments expressed interest in the disposition to be made by the United States Government of those tin stocks held and to be acquired in excess of strategic stockpile requirements. This

Government has now decided that it will hold these stocks in insulation and that any withdrawals shall be made only at the direction of the President as in the case of regular stockpile materials.

DEPARTMENT OF STATE,
Washington, March 5, 1954.

Senator MALONE. Now, that being the case, does not this excess tin that might be in excess of our stockpile requirements serve to keep the tin prices higher to American consumers?

Mr. WAUGH. I think that is a matter you ought to discuss with the tin experts and the ODM.

Senator MALONE. Well, what would be your reasonable answer to this question? You are in charge up there, and I presume you have discussed it with your people. What would be the effect, in your judgment?

Mr. WAUGH. Of keeping it off the market?

Senator MALONE. Yes. Insulation of the tin that we purchase and an agreement with them ahead of time that it would not be released, even if we had too much tin.

Mr. WAUGH. It would probably result in having no effect on the current market, if it is kept off the market. If it was put on the market, it would probably have a depressing effect on the market.

Senator MALONE. That is what I asked you.

Mr. WAUGH. Yes.

Senator MALONE. Is this not a means, then, of helping to operate a tin agreement by the United States without being a signatory to the agreement?

Mr. WAUGH. No, I wouldn't say that.

Senator MALONE. Now, we have pointed out that the Proposals for World Trade prepared by the United States State Department in 1945 was the source for the creation of three organizations, first, the General Agreement on Trade and Tariffs, and second, the Interim Coordinating Committee for International Commodity Arrangements, and third, the United Nations Ad Hoc Committee on Restrictive Business Practices.

At the time these proposals were written there were certain elements in the State Department whose interests I believe to be inimical to the United States welfare, principally Mr. Alger Hiss. That was in 1945. I therefore request that you have a thorough study made of the basic memorandum and the drafts of these proposals to establish all of the persons who helped prepare these proposals, and that you furnish for insertion at this point in the record a complete list of those who helped to draft these proposals. Is that a reasonable request, Mr. Secretary?

Mr. WAUGH. We will try to comply with it, sir.

Senator MALONE. I will read it again.

Mr. WAUGH. Yes.

Senator MALONE. It is a very important responsibility that I am asking you to assume.

Mr. WAUGH. Yes, I understand that.

Senator MALONE. Because you are the only one that has complete charge of a department that still contains a good many of the people who were interested and actually active in the preparation of these proposals.

I request that you have a thorough study made of the basic memoranda—this goes back to 1945—where the basic source material was

prepared in the State Department as a basis for three organizations, the General Agreement on Trade and Tariffs, to which some people think we are bound regardless of what we may do now, the Interim Coordinating Committee for International Commodity Arrangements—if anyone that doesn't make a lifework of it could understand the relationship between all of these alphabetical agencies, I would be greatly surprised—and the United Nations Ad Hoc Committee on Restrictive Business Practices; and to establish all of the persons—that means the advisers and the principals who signed the memorandums—who helped prepare these proposals, and that you furnish for insertion in the record a complete list of those who made up a draft of those proposals.

Now, Mr. Secretary, I am going to assume, and I know that I can, as chairman of the committee, that you are just as anxious to determine who and what was behind all of these proposals in 1945 as the chairman and the members of the comittee are to complete the record. I think it is doubly important, due to the conclusive proof that we have had in the last few months, that none of the original ideas have been abandoned.

Now, we have spent considerable time in determining responsibility, not the responsibility particularly for the alphabetical agencies that have carried out these ideas, but who are behind them and what persons or what organizations caused the policy to be adopted that has resulted in our dependence on offshore areas for many of the things we can't fight a war without, with conclusive evidence that we cannot secure them in wartime, and why our domestic economy is moving and has moved a considerable distance from a civilian economy to a war economy.

You are aware of, and I am sure you have read the memo, or at least it is available to you, that Mr. Harry Dexter White sent in 1945 to the then President, advising that we were out of these materials; that our reserves showed that in a certain number of years, the longest, I think, being 12 years for petroleum and 3 years for tungsten, they would be gone. He mentioned a dozen or so of these materials in his memo to the Secretary—and he was Assistant Secretary of the Treasury—and said that we would completely exhaust our domestic supplies. Therefore, he advised the Secretary, "We should save our materials and buy them from foreign countries." And he advised that if we were to loan money to Russia, they were in position to funish most of these materials.

Secretary Morgenthau sent a letter to the then President, embodying these recommendations, and the President, at the time of signing the stockpile bill, said that he signed it very reluctantly, because his administration did not agree with the Buy American Act and believed that we should save our strategic and critical materials and buy them from foreign countries. And that was established as the policy of this Nation and still is in effect.

Now, we would just like to see what persons and what movement were behind these State Department memos and suggestions to other nations that emanated at about the same time, from the State Department; when Harry Dexter White was promoting the policy that was later adopted by the Treasury Department.

(The list of names referred to is as follows:)

RESPONSE TO INFORMATION REQUESTED BY SENATOR GEORGE W. MALONE

The preparatory work leading to the several projects and conferences referred to hereinafter was the product of extensive interagency cooperation. The activities of the several delegations were carried out within the framework of authorized instructions based upon interagency consultation, developed in advance of the respective conferences and approved by the President. The instructions were subject to subsequent modification by the Secretary or Acting Secretary of State, also based upon interagency consultation in appropriate cases as the conferences proceeded. Any significant departure from the original instructions required approval of the President.

(The text immediately following the numbered items is from Senator Malone's letter.)

1. Preparation of the document Proposals for Expansion of World Trade and Employment, published by the United States Government in November 1945 and transmitted to other governments.

The proposals were the product of the work of specialists in many agencies of the executive branch of the Government, performed under the general chairmanship of William L. Clayton, then Assistant Secretary of State for Economic Affairs. The technical staff within the Department of State primarily responsible for the work leading to the proposals had been under the general supervision of Harry C. Hawkins prior to September 1944; of Bernard F. Haley from September 1944 through June 1945; and of Clair Wilcox from July 1945 to November 1, 1945, the date of their submission to the then Secretary of State, James F. Byrnes. The responsibilities of Messrs. Hawkins and Haley were incident to their duties as successive Directors of the Office of Economic Affairs, and those of Mr. Wilcox as Director of the Office of International Trade Policy, successor to the former office.

Within the Department of State the work leading to the proposals was primarily concentrated in the then Division of Commercial Policy, of which William A. Fowler was then Chief. By virtue of the comprehensive subject matter of the proposals, however, the work cut across organizational lines and involved continuing participation by the staffs of other units of the Department, particularly other economic offices concerned with such matters as commodity problems and financial and monetary affairs, and the geographic offices having principal responsibility for United States relations with specific countries.

Over a period of time many members of the staffs in other agencies concerned with the foreign economic aspects of their respective agency's responsibilities also participated in this work. The other agencies primarily concerned were the Departments of Treasury, Commerce, Agriculture, War, Navy, and Labor, and the Tariff Commission.

2. Preparation of Department of State Publication 2439, Commercial Policy Series 80, 1945.

This publication is entitled "Anglo-American Financial and Commercial Agreements." The work leading to these agreements was also the product of extensive interagency cooperation within the executive branch under the general supervision of Mr. Clayton.

In addition to officials of the Department of State, negotiations with the United Kingdom included, among others, the Secretaries of the Departments of Treasury and of Commerce, the Chairman of the Federal Reserve Board, and the Administrator of Surplus Property. Those from the Department of State included:

James F. Byrnes, Secretary.
Dean Acheson, Assistant Secretary.
William L. Clayton, Assistant Secretary.
Thomas B. McCabe, Foreign Liquidation Commissioner.
Emilio G. Collado, Director, Office of Financial and Development Policy.

Within the Department of State, the work leading to the proposals, referred to in the United States-United Kingdom Understanding Reached on Commercial Policy, was the same as set forth in item 1 above relating to the Proposals for Expansion of World Trade and Employment.

The work preparatory to the joint statement Settlement for Lend Lease and Reciprocal Aid, Surplus War Property and Claims within the Department of State was performed in the Office of the Foreign Liquidation Commissioner, under Commissioner Thomas B. McCabe, and in the Office of Financial and Development Policy under Emilio G. Collado, Director. Within the latter Office,

the work tended to be concentrated in the Division of Lend Lease and Surplus War Property Affairs of which Frank W. Fetter and Hubert F. Havlik were successively acting chiefs during this period.

While much of the work preparatory to the Financial Agreement was done in the Treasury Department, Mr. Collado, as Director of the Office of Financial and Development Policy, was primarily responsible for the State Department's interest and contribution to this phase of the work, and drew upon the staff of that Office and other units of the Department as occasion required.

3. Preparation of Suggested Charter for an International Trade Organization of the United Nations.

The preparation of the Suggested Charter was an integral part of the work in process within the executive branch of the Government in the general field of postwar commercial policy. It represented further development of the work which had led to the proposals (item 1 above) in preparation for the then forthcoming United Nations Conference on Trade and Employment.

As in the case of the proposals the work involved wide interagency participation and was performed under the general chairmanship of Mr. Clayton as Assistant Secretary of State until August 16, 1946, and thereafter as Under Secretary of State for Economic Affairs. Similarly, while the work within the Department involved the participation of many units, it was concentrated in the Office of International Trade Policy under the direction of Clair Wilcox.

4. Preparatory committee appointed to arrange for International Conference on Trade and Employment, set up in 1946, and convening in London in October 1946.

The delegation included representatives of the Departments of Treasury, Agriculture, Commerce and Labor, and of the Tariff Commission. The members of the Department of State and of the Foreign Service were:

Chairman: Clair Wilcox, Director, Office of International Trade Policy.

Vice chairman: Harry C. Hawkins, counselor of Embassy for economic affairs, American Embassy, London.

Advisers:

Willis C. Armstrong, adviser on State trading, Commercial Policy Division.
Edmund H. Kellogg, Division of International Organization Affairs.
Donald D. Kennedy, Chief, International Resources Division.
John M. Leddy, adviser on general commercial policy, Division of Commercial Policy.
Robert P. Terrill, Associate Chief, International Resources Division.

Technical Secretary: J. Robert Schaetzel, special assistant to the Director, Office of International Trade Policy.

5. Preparation of Suggested Charter for an International Trade Organization of the United Nations, a document issued by the Department of State in October 1946.

This is the same document as that referred to in item 3 above.

6. Drafting committee for draft charter which functioned in New York during January and February 1947.

The Treasury Department was also represented on this project. Department of State members of the drafting committee were—

United States representative: John M. Leddy, adviser, Division of Comercial Policy.

Members:

Honore M. Catudal, consultant, Division of Commercial Policy.
Robert P. Terrill, Associate Chief, Division of International Resources.
William T. Phillips, special assistant on Commodity Policy, International Resources Division.
Edmund H. Kellogg, specialist on international organization affairs, Division of International Organization Affairs.

7. Second session of the preparatory committee, which met in Geneva, Switzerland in April 1947.

8. Tariff negotiations at Geneva conducted April through October 1947.

9. Preparation of draft at Geneva for submission to the United Nations Conference on Trade and Employment at Habana, Cuba.

The three foregoing items are aspects of a single project. At the second session of the Preparatory Committee (item 7), which was convened in Geneva during

the period April 10–October 30, 1947, the tariff negotiations (item 8) were conducted and negotiation was concluded of the draft Geneva Charter for the International Trade Organization (item 9) for submission to the United Nations Conference on Trade and Employment.

The delegation included representatives of the Departments of Treasury, Agriculture, Commerce, Labor and War, and of the Army and Navy Munitions Board and of the insular government of Puerto Rico. The Department of State and Foreign Service members of the United States delegation, excluding administrative and clerical staff, were—

Chairman: William L. Clayton, Under Secretary of State for Economic Affairs.
Vice Chairman: Clair Wilcox, Director, Office of International Trade Policy.
Delegates:
Winthrop G. Brown, Chief, Division of Commercial Policy.
Harry C. Hawkins, counselor of Embassy for economic affairs, American Embassy, London.
Advisers:
Honore M. Catudal, adviser, Division of Commercial Policy; Einar Jensen, agricultural attaché, American Legation, Bern.
Edmund H. Kellogg, Division of International Organization Affairs.
Donald D. Kennedy, Chief, International Resources Division.
John M. Leddy, adviser on general commercial policy, Division of Commercial Policy.
Robert P. Terrill, Associate Chief, International Resources Division.
Tariff negotiating teams:
United Kingdom:
Wilson T. M. Beale (head), Assistant Chief, Division of Commercial Policy.
Don C. Bliss, commercial attaché, American Embassy, London.
Joe Adams Robinson, Division of Commercial Policy.
Canada:
Homer S. Fox (head), commercial attaché, American Embassy, Ottawa.
Constant Southworth, Division of Commercial Policy.
Southern Dominions:
Robert M. Carr (head), adviser, Division of Commercial Policy.
Kathleen Molesworth, second secretary and consul, American Embassy, London.
India:
Edwin G. Moline (head), Division of Commercial Policy.
Joseph S. Sparks, vice consul, American consulate, Karachi, India.
France:
Daniel J. Regan (head), counselor of the Embassy for economic affairs. America Embassy, Paris.
Mary G. Crain, Division of Commercial Policy.
H. Arnold Quirin, Division of Commercial Policy.
Belgium and Holland:
William A. Fowler (head), adviser to the United States representative (ECOSOC).
Julean Arnold, Jr., Division of Commercial Policy.
China and Lebanon:
Merrill C. Gay (head), Assistant Chief, Division of Commercial Policy.
John F. Shaw, Division of Commercial Policy.
Czechoslovakia:
Vernon L. Phelps (head), adviser on European commercial affairs Division of Commercial Policy.
Robert Bruce Wright, Division of Commercial Policy.
Brazil and Chile:
Du Wayne G. Clark (head), commercial attaché, American Embassy, Rio de Janeiro.
William F. Fray, Division of Commercial Policy.
Cuba:
H. Gerald Smith (head), assistant to the Assistant Secretary of State for American Republic Affairs.
Amelia H. Hood, Division of Commercial Policy.
Norway:
Norman Burns (head), adviser, Division of Commercial Policy.
Robert Bruce Wright, Division of Commercial Policy.
Technical Secretary: J. Robert Schaetzel, special assistant to the Director, Office of International Trade Policy.

10. Conference on Trade and Employment at Habana, Cuba, November 21, 1947, through March 24, 1948.

The delegation included representatives of the Departments of Treasury, Agriculture, Commerce, Labor, Interior, the then National Military Establishment, and of the Tariff Commission. Congressional, Department of State, Foreign Service, and nongovernmental members were—

Chairman: William L. Clayton, adviser to the Secretary of State.
Vice Chairman: Clair Wilcox, Director, Office of International Trade Policy.
Delegates:
Jere Cooper, United States House of Representatives.
James Grove Fulton, United States House of Representatives.
Jacob K. Javits, United States House of Representatives.
A. Willis Robertson, United States Senate.
Harry C. Hawkins, Minister-Counselor for Economic Affairs, American Embassy, London.
Political adviser: Albert F. Nufer, American Ambassador to El Salvador.
Legal adviser: Seymour J. Rubin, Assistant Legal Adviser for Economic Affairs.
Nongovernmental members:
John Abbink, past chairman, National Foreign Trade Council.
Kenzie S. Bagshaw, chairman, Executive Committee, National Grange.
H. W. Balgooyen, member, advisory group, international economic relations committee, National Association of Manufacturers.
John Brophy, director, Industrial Union Councils, Congress of Industrial Organizations.
John Dickey, president, Dartmouth College.
Elvin H. Killheffer, member foreign commerce department committee, United States Chamber of Commerce.
Lee Minton, president, Glass Bottle Blowers Association American Federation of Labor.
Mildred Northrop, associate professor of economics, Bryn Mawr College.
John J. Riggle, assistant secretary, National Council of Farmers Cooperatives.
Victor J. Schoepperle, Bankers Association for Foreign Trade.
Wilbert Ward, past president, Bankers Association for Foreign Trade.
H. L. Wingate, president, Georgia Farm Bureau, American Farm Bureau Federation.
Technical members:
Honore M. Catudal, adviser, Division of Commercial Policy.
Hubert F. Havlik, Acting Chief, Division of Investment and Economic Development.
Edmund H. Kellogg, specialist, Division of International Organization Affairs.
Donald D. Kennedy, Chief, International Resources Division.
John M. Leddy, adviser, Division of Commercial Policy.
H. Gerald Smith, acting adviser, Office of Financial and Development Policy.
Robert P. Terrill, Associate Chief, International Resources Division.
Liaison officer: Morris N. Hughes, first secretary, American Embassy, Habana.
Assistants:
James N. Cortada, economic analyst, American Embassy, Habana.
Carl F. Norden, second secretary, American Embassy, Habana.
Technical secretary: J. Robert Schaetzel, special assistant to Director, Office of International Trade.

There was also convened at Habana the first sesston of the contracting parties to the General Agreement on Tariffs and Trade during the period February 28 through March 24, 1948. The United States representative at this session was an official of the Department of Commerce. Department of State members of the delegation were—

Honore M. Catudal, adviser, Division of Commercial Policy.
John M. Leddy, adviser, Division of Commercial Policy.
Vernon L. Phelps, adviser, Division of Commercial Policy.

11. Preparations for third session of contracting parties to the General Agreement on Tariffs and Trade.

This work conformed to the general pattern set forth in item 1 above. Many other agencies of the Government participated. Within the State Department the work was under the supervision of Willard L. Thorp, Assistant Secretary for Economic Affairs. While the work involved many units of the Department, it

was concentrated in the Office of International Trade Policy, of which Winthrop G. Brown was then Director, and in the Division of Commercial Policy, a component of that Office, of which Woodbury Willoughby was then Chief.

12. Third session held at Annecy, France, April through August 1949.

The third session of the contracting parties to the General Agreement on Tariffs and Trade (GATT) was held at Annecy during the period April 8 through August 26, 1949.

The delegation included representatives of the Departments of Treasury, Agriculture, Commerce, and Labor, and of the then National Military Establishment. The members of the delegation from the State Department and the Foreign Service, exclusive of the administrative and clerical staff, were—

Chairman: Woodbury Willoughby, Chief, Division of Commercial Policy, Chairman of the Interdepartmental Committee on Trade Agreements.

Advisers:

Honore M. Catudal, adviser, Division of Commercial Policy.
Walter Hollis, assistant to the Legal Adviser.
F. A. Motz, attaché, American Embassy, Paris.
Vernon L. Phelps, adviser on European commercial affairs, Division of Commercial Policy.

Tariff negotiating teams:

Denmark and Finland: Julean Arnold, Jr., Division of Commercial Policy.

Sweden:

Avery F. Peterson (head), counselor, American Embassy, Stockholm.
H. Arnold Quirin, Division of Commercial Policy.

Italy:

Homer S. Fox (head), counselor, American Embassy, Ottawa.
John M. Kennedy, Division of Commercial Policy.

Greece and Liberia:

Horace H. Smith (head), first secretary, American Embassy, Athens.
C. Thayer White, Division of Commercial Policy.

Dominican Republican and Haiti:

Daniel M. Braddock (head), first secretary, American Embassy, Madrid.
Amelia Hood, Division of Commercial Policy.

Columbia, Uruguay, and Nicaragua:

Howard H. Tewksbury (head), Chief, Division of River Plate Affairs.
Elizabeth McGrory, Division of Commercial Policy.
William F. Gray, Division of Commercial Policy.

Consultant: Adolph B. Horn, assistant attaché, Habana Embassy.

Secretariat:

Arthur C. Nagle, special assistant to the Chairman, Division of International Conference.
James H. Lewis, technical secretary, Acting Assistant Chief, Division of Commercial Policy.

Trade agreements committee staff:

Robert W. Shaw, Division of Commercial Policy.
George C. Spiegel, Division of Commercial Policy.
M. Margaret McCoy, Division of Commercial Policy.

Statistical assistant: Evelyn F. Brooks, Division of Commercial Policy.

13. Working comittee named at above to study conducting a third round of multilateral tariff negotiations.

The working party set up at the first session to study possibilities of arranging a third round of tariff negotiations met at Annecy and reconvened later in London. Vernon L. Phelps adviser on European commercial affairs, Division of Commercial Policy, Department of State, represented the United States at Annecy. James H. Lewis, Acting Assistant Chief, Division of Commercial Policy, Department of State, and Don C. Bliss, counselor of Embassy for economic affairs, Embassy London, represented the United States at London.

14. Fourth session of contracting parties to GATT, held at Geneva, Switzerland, February–April 1950.

The delegation included representatives of the Departments of Treasury, Commerce, and Agriculture, and of the Economic Cooperation Administration. The members of the delegation from the Department of State and the Foreign Service were:

Chairman: Henry F. Grady, American Ambassador to Greece.

Vice-chairman: John W. Evans, Chief, Economic Resources and Security Staff.
Advisers:
Walter Hollis, assistant to the Legal Adviser.
Orville J. McDiarmid, Acting Chief, Monetary Affairs Staff.
Raymond Vernon, adviser, Commercial Policy Staff.
Technical secretary: Melvin E. Sinn, commercial policy staff.

15. Preparations for the Conference at Torquay, England.

The procedure was generally the same as set forth in items 1 and 11 above, with the exception that the commercial policy staff had become sucessor to the Division of Commercial Policy and its Chief during this period was Carl D. Corse.

16. Tariff negotiations meeting at Torquay, England, September 28, 1950, through April 21, 1951.

The delegation to the third set of tariff negotiations included representatives of the Departments of Treasury, Agriculture, Commerce, and of the Economic Cooperation Administration. Those from the Department of State and Foreign Service were:

Chairman: Willard L. Thorp, Assistant Secretary of State for Economic Affairs.
Alternate chairman: Winthrop G. Brown, Director, Office of International Trade Policy.
Vice chairman:
Carl D. Corse, Chief, Commercial Policy Staff (chairman, trade agreements committee).
Vernon L. Phelps, alterante chairman, trade agreements committee.
Negotiating teams:
United Kingdom:
Charles F. Baldwin (head), American Embassy, London (head of Canada and Australia-New Zealand-South Africa teams, also).
James H. Lewis (deputy head), Office of British Commonwealth and Northern European Affairs.
Kathleen Molesworth, American Embassy, London.
Canada:
Constant Southworth (deputy head), Office of British Commonwealth and Northern European Affairs.
Richard T. Black, Division of Commercial Policy.
Australia, New Zealand, and South Africa:
Albert E. Clattenburg, Jr. (deputy head), American Embassy, Lisbon.
(Mrs.) Musedorah Thoreson, Office of Birtish Commonwealth and Northern European Affairs.
Belgium, Indonesia, Luxembourg, and Netherlands:
Pat'en D. Allen (head), American Embassy, Brussels.
John F. Shaw, Office of Phillipine and Southeast Asian Affairs.
France:
Daniel J. Began (head), Foreign Service officer, Paris.
C. Thayer White, Commercial Policy Staff.
Germany:
Knowlton Hicks (head), Foreign Service officer, American Legation, Vienna.
Henry Wyner, Bureau of German Affairs.
Austria, Denmark, Italy, Norway, Sweden:
John M. Kennedy (head), Office of Western European Affairs.
John Montgomery, Office of Western European Affairs.
India, Korea, and Turkey:
Francis Lincoln (head), Office of Greek, Turkish, and Iranian Affairs.
(Mrs.) Louise Sissman, Office of South Asian Affairs.
Cuba and Dominican Republics:
Merwin Bohan (head), Foreign Service reserve officer (head of Brazil and Peru teams, also).
(Mrs.) Amelia H. Hood, Bureau of Inter-American Affairs.
Brazil and Peru:
William A. Conkright (deputy head), American Embassy, Seoul.
William F. Gray, Office of Northwest Coast Affairs.
Elizabeth McGrory, Office of Middle American Affairs.
Technical secretary: (Mrs.) Margaret H. Potter, Commercial Policy Staff.

The fifth session of the contracting parties was held concurrently with the tariff negotiations and the United States delegation included representatives of

the Departments of Treasury, Agriculture, Commerce, and the Economic Cooperation Administration. Those from the Department of State were—
Chairman: Winthrop G. Brown, Director, Office of Intrnational Trade Policy.
Advisers:
Saul R. Srole, Acting Assistant Chief, Monetary Affairs Staff.
Leonard Weiss, Assistant Chief, Commercial Policy Staff.
Technical secretary: Northrup Kirk, Monetary Affairs Staff.

17. Preparation for the sixth session of the contracting parties.

The procedure was generally the same as set forth in items 1, 11, and 15, above, except that the Office of Economic Defense and Trade Policy had become successor to the responsibility in the field of trade policy of the former Office of International Trade Policy, and John M. Leddy was Acting Director of the new Office. The Commercial Policy Staff was a component of the new Office and Carl D. Corse was its Chief.

18. Sixth session, held at Geneva, September 17 through October 26, 1951.

The delegation included representatives of the Departments of Treasury, Agriculture, and Commerce, and of the Economic Cooperation Administration. Those from the Department of State and the Foreign Service were:
Chairman: Willard L. Thorp, Assistant Secretary for Economic Affairs.
Vice Chairman: John M. Leddy, Acting Director, Office of Economic Defense and Trade Policy.
Advisers:
Jack C. Corbett, Deputy Director, Office of Financial and Development Policy.
Joseph A. Greenwald, Commercial Policy Staff.
Walter Hollis, Office of the Legal Adviser.
Walter M. Kotschnig, Director, Office of U. N. Economic and Social Affairs.
J. Robert Schaetzel, special assistant to the Assistant Secretary for Economic Affairs.
Secretariat:
Robert E. Read, secretary of delegation, United States resident delegation, Geneva.
Helen L. Brewster, technical secretary, Office of the Assistant Secretary for Economic Affairs.

19. Participation on Intersessional Committee established at above.

The United States delegations to meetings of the Ad Hoc Committee for Agenda and Intersessional Business were—
Ben T. Moore, first secretary, American Embassy, London, at meeting in Geneva, January 14–15, 1952; at meeting in Geneva, February 25, 1952.
Joseph A. Greenwald, economic officer, United States resident delegation staff, Economic Commission for Europe, Geneva, Switzerland; at meeting in Geneva, February 25, 1952.
Raymond Vernon, Deputy Director, Office of Economic Defense and Trade Policy; at meeting in Geneva, September 4–5, 1952.

20. Preparations for seventh session, and session itself, held at Geneva, Switzerland, in 1952.

(*a*) The preparations for the seventh session followed the general pattern as set forth above in connection with item 17 above.
(*b*) The delegation included representatives from the Departments of Treasury, Agriculture, and Commerce, and from the Mutual Security Agency. Those from the Department of State and the Foreign Service were—
Chairman: Willard L. Thorp, Assistant Secretary for Economic Affairs.
Vice Chairman: Raymond Vernon, Deputy Director, Office of Economic Defense and Trade Policy.
Advisers:
Louis C. Boochever, Jr., Office of European Regional Affairs.
John J. Czyzak, Office of Legal Adviser for Economic Affairs.
Mortimer D. Goldstein, Assistant Chief, Exchange Restrictions and Payments Agreements, Monetary Affairs Staff.
Joseph A. Greenwald, economic officer, resident United States delegation of international organizations.
Miss Florence Kirlin, special assistant, Office of Assistant Secretary for Congressional Relations.
Frederick A. Motz, attaché, American Embassy, Paris.
Executive secretary: Henry F. Nichol, conference attaché, resident United States delegation to international organizations, Geneva.

Technical secretary: Mrs. Ruth S. Donahue, Office of Assistant Secretary for Economic Affairs.

21. Work of Ad Hoc Committee for Agenda and Intersessional Business prior to or subsequent to seventh session of contracting parties.

(*a*) United States representatives to the Ad Hoc Committee meetings prior to the seventh session are listed in item 19 above.

(*b*) United States representatives to meetings subsequent to the seventh session were:

(1) At meeting in Geneva, February 2, 1953: United States representatives:
Carl D. Corse, Chief, Commercial Policy staff.
Advisers:
Joseph A. Greenwald, United States resident delegation staff, Economic Commission for Europe, Geneva, Switzerland.
C. Thayer White, assistant officer in charge of economic affairs, Office of Northeast Asian Affairs.

(2) At meeting in Geneva, August 17, 1953:
United States representative: John M. Leddy, Acting Deputy Assistant Secretary for Economic Affairs.

(3) At meeting in Geneva, February 18, 1954:
United States representative: Joseph A. Greenwald, economic officer, resident United States delegation to international organizations, Geneva, Switzerland.

22. Treaty constituting the European Coal and Steel Community.

The United States is not a party to this treaty and did not participate in its negotiation. Responsibility for following treaty developments from the viewpoint of United States interests has been a continuing function of the staffs of the Assistant Secretary for Economic Affairs and of the Assistant Secretary of the Bureau of European Affairs.

23. Waiver of provisions of above treaty agreed to at seventh session of contracting parties.

Pursuant to its instructions from Washington, the delegation to the seventh session represented the United States in this negotiation. The Department of State and Foreign Service members of the delegation are set forth in item 20 (*b*) above.

24. Preparations for the eighth session and session itself, September 17 to October 24, 1953.

(*a*) The preparations for the eighth session followed the pattern indicated in items 17 and 20 (*a*) above, except that during this period Samuel C. Waugh was Assistant Secretary of State for Economic Affairs.

(*b*) The delegation included representatives of the Departments of Treasury, Agriculture, and Commerce. Those from the Department of State and the Foreign Service were—

Chairman: Samuel C. Waugh, Assistant Secretary for Economic Affairs.
Vice chairman: Winthrop G. Brown, counselor, American Embassy, London.
Advisers:
Carl D. Corse, Chief, Commercial Policy staff, Office of Economic Defense and Trade Policy.
Joseph A. Greenwald, economic officer, American consulate general, Geneva, Switzerland.
Walter Hollis, assistant to the Legal Adviser.
John M. Leddy, Director, Office of Economic Defense and Trade Policy.
Bernard Norwood, international economist, Office of Economic Defense and Trade Policy.
Alexander Rosenson, Chief, Monetary Affairs staff, Office of Financial and Development Policy.
Secretary of the delegation: Mason A. LaSalle, resident delegation to international organization, Geneva, Switzerland.

25. Preparations currently being made, if any, for future sessions of the contracting parties to the General Agreement on Tariffs and Trade.

Preparations for the ninth session in October 1954 are among the many factors under consideration in connection with the comprehensive review of United States foreign economic policy being undertaken by the executive branch in the general cotext of the report of the Commission on Foreign Economic Policy. Mr. Clarence Randall, as the President's representative, is supervising the inter-

agency work. Samuel C. Waugh, Assistant Secretary of State for Economic Affairs, is primarily responsible within the Department of State for this Department's participation in the work.

LEGAL EFFECT OF PERMANENT ADVISORY COMMISSION ON UNITED STATES

Senator MALONE. Mr. Secretary, I don't know that we cleared this up entirely. What legal effect will the new Permanent Advisory Commission have on the United States? What legal effect? We did not sign it. We did not approve it. But what effect does it have?

Mr. WAUGH. Well, under the functions and powers of that organization, all the Economic and Social Council may do is to initiate studies and reports on these and related matters and may make recommendations.

I don't think it would have any legal effect as far as our being bound. That is my opinion, and I shouldn't be expressing a legal opinion, because I am not practicing law.

Senator MALONE. I just wanted your opinion. It has no effect on you, if you have a choice. You have already testified that you are opposed to it.

Mr. WAUGH. Yes, sir.

Senator MALONE. What moral effect would it have? Here we have the United Nations set up, a new organization. What moral effect would it have on our actions in the United States of America?

Mr. WAUGH. I don't think it would have any moral effect whatsoever, sir. I think it is our obligation to represent the administration and our American people, and we express that very clearly that we are opposed to it, and I don't think it would have any moral effect whatever.

Senator MALONE. I point out to you, Mr. Secretary, that all these things seem to be cumulative. I would have been very pleased if it was not necessary for our committee to go into the history of these organizations. But starting in 1945—that is the first tangible evidence we have in the Office of the Secretary of the Treasury and the Office of the Secretary of State, that all these things start together and run parallel. But successive resolutions by the United Nations have already been made a part of the record. And then we have the Paley report, and the Bell report, and the Gray report. They are all successive and cumulative. And finally they start referring to each other.

In its recent report, the President's Materials Policy Commission, the Paley Commission, volume I, page 87, says:

> The United States has not ratified the treaty, but under the resolution of the United Nations Economic and Social Council is bound with other nations to recognize chapter VI as a general guide.

As a matter of fact, when the International Trade Organization was submitted to Congress, Congress refused to sanction it, and were very plain spoken in committees, whether it was on the record or off; I am not prepared to say at the moment.

Do you agree with the conclusion of the Paley Commission, Mr. Secretary?

Mr. WAUGH. I don't agree with it. I don't see that you are bound by it. I think it is a legal problem, but I don't think you would be bound by it.

Senator MALONE. You do not believe we are bound by it?

Mr. WAUGH. No, sir.

Senator MALONE. Either morally or legally?

Mr. WAUGH. No, sir.

Senator MALONE. Now let me say to you, Mr. Secretary, that I consider you a great American, just the same as I do the members of this committee, and you are a member of an administration that in my humble judgment are doing the best they can. But we start quoting the reports after a certain length of time.

I had earlier in the hearings dug up a book they were using in West Point, teaching our young hopefuls, that later become lieutenants and captains and majors and colonels and generals, the same general world trade policy that has been taught from the beginning, for the last 10 or 15 years, in the State Department and through the United Nations.

I made a part of the record some of the things they were teaching.

Well, then I asked in a letter if they were still teaching this material, and the commandant of West Point came back with a very informative letter and said "No," they had changed over to teaching the Paley report. So that is used as a textbook now, according to the commandant.

So what we do apparently is teach our young hopefuls the economics of the country by reading the books that these same people have written, which finally becomes authoritative, like a new word in the dictionary.

Now, what do you believe would be the impact on United States accessibility of the critical materials that are necessary for our national defense and for our economic growth if they go through with this cartel arrangement, including all the nations, apparently, that have these raw materials for sale, except us? And that is the crux of the matter that we are interested in.

Mr. WAUGH. I think our overriding relations with these respective countries will predominate. This is a study group that will study problems, but I think our overriding relations with these friendly countries will be the governing factor.

Senator MALONE. Aren't these friendly countries that proposed the resolution and passed it?

Mr. WAUGH. Sometimes I wonder.

Senator MALONE. So do I, and you can put that on the record. Sometimes I wonder if they are friendly at all. I am very much interested in what you said off the record, because I believe you.

Just one more question in regard to this international cartel that can be formed under the resolution passed by that branch of the United Nations, to which our representative objected, and which he voted against: You do understand that they can form such an international cartel, do you not?

Mr. WAUGH. I don't believe they can under this agreement. I don't believe they have the authority to. I don't think they can form a cartel under this agreement.

Senator MALONE. Suppose they just follow through and form what they say they already have now under the resolution; that is, an understanding, whether you call it a cartel or what you call it, that the price will be so-and-so. And if we are unable to get these materials anywhere else would it not be effective, regardless of our membership in it?

Mr. WAUGH. As I said before, I think we will have overriding authority.

Senator MALONE. What would be your overriding authority except the availability of these materials elsewhere?

Mr. WAUGH. Well, I think there are a number of things in foreign relations that we have developed. And that gets again into the political aspects, Senator.

Senator MALONE. It really does, but you are up to your ears in it. You might just as well discuss it.

Mr. WAUGH. I don't believe I should discuss it. I think that should be discussed with a political officer.

Senator MALONE. You undoubtedly have ideas. Any normal man would have. And suppose they go through with this resolution which they have already established and passed, and they are in control, speaking of all the nations, whether the sterling group has three-fourths of them or not. I think you will say that all of the nations have three-fourths of the raw materials. And if they form a group, and we are dependent on the purchase of materials from these folks, wouldn't they be in control of the situation?

Mr. WAUGH. Again I dislike very much talking on a political factor, but I think that the military leadership of the free world and the dependence upon this country is a factor that cannot be discounted in a matter of this kind.

Senator MALONE. Are we threatening to withdraw the military assistance to the free world if they form such an association?

Mr. WAUGH. Oh, no.

Senator MALONE. Then what do you mean by that?

Mr. WAUGH. You are basing some presumptions that make it very difficult for me to answer, because I can't completely agree that the basic conclusions that you reach will ever be reached.

Senator MALONE. Well, can you agree with this conclusion that the chairman has reached, and that is that the purpose of the resolution in the first place was to hold the price of these materials higher?

Mr. WAUGH. No, I can't, sir.

Senator MALONE. What would be the purpose of it?

Mr. WAUGH. I think it is more to get away from the dips and the mountains. I think they are more interested in a steady flow of material than they are in boosting up the price.

Senator MALONE. That gets into entitlements for consumption. Once you have your cartel, a solid organization, and are going to guarantee a profitable price for the production of these materials, with no dips or rises in that price, then it becomes necessary to allocate certain materials. I read material here that indicated it, that nations for their development would be allocating materials. That is part of the deal, isn't it?

Mr. WAUGH. Senator, that is what we are doing on the sugar agreement.

Senator MALONE. Yes, I thought it was in the sugar agreement, and it was passed by the Senate, and I think the same thing will happen as happened on the wheat agreement. I think that will be a matter of history in another year. And you are entirely within your rights. Congress adopted the sugar agreement. If they adopted the International Trade Organization, you would have had all these agreements

without this resolution. You would agree with that, would you not?

Mr. WAUGH. Of course, I think the present administration has gone on record that they are against international commodity agreements generally.

Senator MALONE. The chairman of this committee is, anyway. That is one area of agreement with the administration.

I have already read into the record the resolution by the United Nations, International Price Relations, Economic Development of Underdeveloped Countries. It resolves that there shall be established an advisory commission to the Economic and Social Council to be known as the Permanent Advisory Commission on International Commodity Trade. The main task of the Commission shall be to examine measures designed to avoid excessive fluctuations in the prices and in the volume of trade in primary commodities including measures aiming at the maintenance of a just and equitable relationship between the prices of primary commodities and the prices of manufactured goods in international trade, to make recommendations:

Any member of the United Nations not represented on the Commission may bring to the Commission's attention any aspect affecting it and may take part in the Commission's discussion of the problem.

Then that means us. We can take part in the discussions, even though we voted against it?

Mr. WAUGH. Oh, yes. That is the rule in all of this.

Senator MALONE. And if we do that, then we are morally in the situation with them.

Mr. WAUGH. If we maintain our position and continue to vote "No," I would say that we were not.

Senator MALONE. I have already read into the record the discussion of the matter of synthetics, or what may be used as substitutes or replacements for these natural materials. That was part of their work?

Mr. WAUGH. Yes, but that was just one man's opinion. I don't think it ever has been given any consideration to any great extent, Senator. I think that synthetics are just as natural a development of business as the fact that the sun rises in the east and sets in the west.

Senator MALONE. Wouldn't you say that that was an indication of what they would like to do under the agreement?

Mr. WAUGH. That was in 1945, if I remember correctly, and as I again say, I think we should use that for historical purposes only and not for the matter of trying to justify this.

Senator MALONE. It is rather recent history. The study on synthetics by the United Nations Secretariat is dated the 29th of May 1953. There is quite a little history in this business.

Mr. WAUGH. But that wasn't the one where the discussion took place with reference to synthetics. I think that was 2 or 3 years previous, wasn't it?

Senator MALONE. Here it is. I will read it again—

may serve as a basis for further discussion of the problem by the Economic and Social Council, possibly leading to recommendations for international action, should it be considered such action is needed in this field. It may be noted that the question of the impact of synthetics on the consumption of natural products has been dealt with from time to time in various studies by the United Nations Secretariat and a broad field of aid to underdeveloped countries, and will be further examined in future reports

And this is May, almost June, of 1953.

Mr. WAUGH. I don't take that to mean, Senator, that there is any objection to the synthetics. I think they are studying the impact of synthetics on the market, the same way that the people in Ireland and Scotland and England are studying the impact of the synthetics of our country on their woolen market.

Senator MALONE. And to work out ways and means to prevent the impact. That is what the committees start with.

It says here, and I will read this again in case you had not heard it or understood it:

May 12, 1954, report to the New York Times, Colombo, Ceylon:

> Representatives of natural rubber producing countries asked the United States again today to increase the price of synthetic rubber.

In other words, it leads to an arrangement that would prevent the impact of the production of synthetic rubber on natural rubber prices in this case.

Mr. WAUGH. In this particular instance, I think they asked for the increase in price in order to be able to compete in order that they would not have to ask for more aid. They are trying to be self-sustaining and trying to get on their own feet.

Senator MALONE. In other words, you go to the bank and say, "You have loaned me $10,000, and I am unable to pay it. The business has failed. I give you the market for my products. So that you can sell your products in this market, but I then won't have to assess the taxpayers more money to give you."

Do you assume that you have to give them billions of dollars "or your markets"? "Your money or your life?"

Mr. WAUGH. No, I don't; either one.

Senator MALONE. Your wording just now suggested that.

Mr. WAUGH. Then I didn't create my right impression.

Senator MALONE. Let's have it again.

Mr. WAUGH. All right. I will start over again.

I tried to first say what those people were asking for and why they are asking for it.

Senator MALONE. Well, why is it? Why are they asking for it? That is a good question.

Mr. WAUGH. I think they are asking for it to sustain life.

Senator MALONE. In other words, to sustain a profitable market for the natural product and an artificial price for the synthetics that we might produce, or keep them off the market to the extent that they can make a profit in their own country. That is all I have asked you. Is that true?

Mr. WAUGH. I don't think the wording gives the right connotation.

Senator MALONE. It is a little blunt, I will admit. But I can't dodge this thing. What am I going to do, write a book in a recommendation here?

Mr. WAUGH. I am certainly trying to be very frank on it.

Senator MALONE. What do you think the objective is of all this arrangement to hold up the price of our synthetics?

Mr. WAUGH. I think their objective is so that they can sustain life.

Senator MALONE. In other words, not put anything on the market, as for example nylon against silk or titanium against a metal like columbium.

Mr. WAUGH. They had thought that the Government, operating the synthetic plants, had subsidized the plants to the extent that it was unfair competition that made their markets so low that they couldn't live, and they thought if private industry would take over the plants—and with this I am not inclined to agree—it would cost more to operate the plants.

Senator MALONE. That isn't the history in private enterprise, is it?

Mr. WAUGH. That is why I mentioned it.

Senator MALONE. In other words, it is liable to get lower rather than higher?

Mr. WAUGH. This all involves a political problem of trying to keep an area——

Senator MALONE. The State Department is in this political problem right up to its ears, every time you turn around.

Mr. WAUGH. Not only the State Department, sir.

Senator MALONE. They are the spearhead of it. So, after all, you must understand it.

Mr. WAUGH. I wouldn't discount the position of the President of the United States of America in this picture.

Senator MALONE. Well, I wouldn't, if I was in your position. But I am only asking you for your idea of why they would form this international cartel if it was not for the purpose of creating an artificial price for their own natural products. Why? Is there another reason?

Mr. WAUGH. I think to maintain a steady flow in the market; a steadier flow.

Senator MALONE. And to maintain a price profitable to them regardless of what we could produce the synthetics for here? My grandson wouldn't hesitate in answering that.

Mr. WAUGH. I didn't know it was in the form of a question. Excuse me. I was not trying to evade.

Senator MALONE. I said, to prevent our synthetics that might be substitutes or replacements for their products from selling at a price that would prevent a profitable price being paid for the natural products that they produce. Isn't that an objective of this resolution that they passed without our help?

Mr. WAUGH. They didn't pass any resolution at the rubber meeting.

Senator MALONE. No, no. I am talking about this latest resolution that passed the United Nations, that has been the subject of our talk all morning. We didn't join it, but suppose they controlled all of the products, and we had no synthetics. Let us suppose we had no synthetic rubber plants, had no synthetic plants for other products. We have synthetic mica now, and all the tests so far prove that it is even more efficient than the natural product under certain conditions. Now suppose we had none of that. Then their cartel or their arrangement, under this resolution, that we did not vote for, would be effective, wouldn't it?

Mr. WAUGH. I think perhaps I don't understand the question to this extent. I don't think this will produce a cartel. I think this is an agreement to study.

Senator MALONE. What is the objective?

Mr. WAUGH. I think the objective, as I say, is to maintain a flow of their product at a profitable price.

Senator MALONE. Now, here is a very enlightening piece of material that we have already quoted from, but I want to just keep the record straight.

"Whenever governments adopt measures affecting the prices of primary commodities." "Governments" it says. If our vote had gone with them, we would be part of that. Our Government is out of that now, but all others are in it and are part of it:

> Whenever governments adopt measures affecting the prices of primary commodities entering international trade, they should duly consider the effect of such measures on the terms of trade of countries in the process of development, in order to ensure that the prices of primary commodities remain in an adequate, just and equitable relation to the prices of capital goods and other manufactured articles so as to permit the more satisfactory formation of domestic savings in the countries in the process of development and to facilitate the establishment of just wage levels for the working population of these countries with a view to reducing the existing disparity between their standards of living and those in the highly industrialized countries.

There is a lot of language there. I could write it in about three lines.

The United Nations didn't see fit to do that. But what do you think that paragraph means?

Mr. WAUGH. Well, I think that the paragraph refers to a broader picture, namely, that the United States of America with our increase in population and our increase in productivity, is going to be exporting more and more of our agricultural and manufactured products.

Senator MALONE. At a loss to the taxpayers? Is that what it means?

Mr. WAUGH. May I finish, first?

Senator MALONE. Yes.

Mr. WAUGH. And that these underdeveloped countries have tremendous potentials and purchasing powers and will be able to absorb more and more of the products grown and manufactured in this country, and to that extent they feel it is worthy of study, plus the underlying factor of keeping countries of that caliber on the side of the nations of the free world.

Senator MALONE. Your off-the-record statement was very enlightening to me in that regard. But let me read this again and see if you still have the same answer:

> Whenever governments adopt measures affecting the prices of primary commodities entering international trade, they should duly consider the effect of such measures on the terms of trade of countries in the process of development, in order to ensure that the prices of primary commodities remain in an adequate, just, and equitable relation to the prices of capital goods and other manufactured articles so as to permit the more satisfactory formation of domestic savings in the countries in the process of development and to facilitate the establishment of just wage levels for the working population of these countries with a view to reducing the existing disparity between their standards of living and those in the highly industrialized countries.

Now, I would condense that for you in about three lines. And that is that we should refrain from selling anything in this country below what they can sell the natural product for in their country at a profit, so that they may sell their product to us, being the only market, unless we previously give the money to some other country that is going to buy it, so that they can profit by selling it to us.

Isn't that what it means?

Mr. WAUGH. Of course, Senator, I know that you realize that that is an oversimplification; that they don't sell only to us.

Senator MALONE. Well, give us the answer.

Mr. WAUGH. I have.

Senator MALONE. In other words, the manufacture of natural rubber should be put up at a price regardless of what it costs here, so that we can buy the natural rubber at a price profitable to them, so they can buy some of our manufactured goods. Is that what your answer is?

Mr. WAUGH. Just exactly the opposite.

Senator MALONE. I am talking of our synthetic rubber price.

Mr. WAUGH. I advocated just exactly the opposite and did not recommend the increase of 2 cents per pound on the synthetic.

Senator MALONE. I didn't think you meant that. I knew that. But what else could your answer mean?

Mr. WAUGH. My answer is a little broader.

Senator MALONE. It is too broad for me. And if you want to stand on it, that will be the end of the interview. But I just don't understand it.

Mr. WAUGH. Well, I will stand on that, on that particular paragraph.

Senator MALONE. What I think your answer means is that you are really for that setup, that we should have our synthetics produced so that they can sell their natural products to us at a profit, and therefore the division of wealth in this country will in some way help them.

Mr. WAUGH. No. I don't subscribe to that at all.

Senator MALONE. I am glad you don't.

Mr. WAUGH. Not a bit. Unqualifiedly.

Senator MALONE. But that is what you think they meant?

Mr. WAUGH. No. I will try it again.

Senator MALONE. I wish you would.

Mr. WAUGH. I think these underdeveloped countries——

Senator MALONE. What are some of them?

Is it the Malayan States and Indochina and Algeria and French West Africa, and South Africa, who dominate the United Nations?

Mr. WAUGH. I will stay right on this hemisphere. I was thinking of Central and South America.

Senator MALONE. This takes in the whole world.

Mr. WAUGH. You asked me what I was thinking of in "underdeveloped countries." I think of the underdeveloped countries which are in Latin America, Central and South America.

Senator MALONE. That we should be concerned with?

Mr. WAUGH. Primarily, yes, because they are in this hemisphere.

Senator MALONE. I am a Western Hemisphere man myself. And there is the national defense consideration.

Mr. WAUGH. That is what I am coming to.

The second is that as to the countries in southeast Asia, India, Pakistan, and the larger area, where there are 450 million people at the present time, I think the balance of industrial strength and the balance of political strength are synonymous, and I think that the United States should be interested in the economic welfare of the underdeveloped countries to the extent that they will not fall under the domination of the Soviet regime.

Senator MALONE. Whose domination do you think India is under now?

Mr. WAUGH. I don't think they are under either, sir. I think they are neutral, and I think they are hanging in the balance. And I say

that as a result of spending 2 weeks there last year, and having interviews with every top official in India, including Mr. Nehru. I think that is one of the most delicate problems today, because I do think that India, and that particular area, may hold the balance of power.

Senator MALONE. If they do, God help us.

Mr. WAUGH. If they should go Communist, and that should mean 85 million people in Japan going Communist, then I repeat what you said. And I would say also, "Amen, God help us."

Senator MALONE. If you are depending on India, you can make up your mind now. We signed the treaty with Japan and forced them into it. I think you can count on them starting to trade with China and buying their raw materials from China and Manchuria and selling them, just like they always did.

(Off the record discussion.)

Senator MALONE. Didn't they stop the flow of monazite sands to us in peacetime not so very long ago?

Mr. WAUGH. I am not familiar with the terms of that transaction.

Senator MALONE. I can tell you they did. They also refused to let airplanes fly over India not long ago; didn't they?

Mr. WAUGH. Yes, sir.

Senator MALONE. Have you any idea that we could continue to get any part of that 900,000 tons annually, about half of our annual use in this country of manganese, hours after an all-out war starts?

Mr. WAUGH. It is very difficult, on account of the transportation. You and I both know that.

Senator MALONE. Then how would you get the manganese, even if you could maintain a transportation line, which no military strategist seemed prepared to say that we could?

Mr. WAUGH. As I say, I go back to my original point. I am not sure that in a crisis they would remain neutral.

Senator MALONE. Wouldn't it be a good deal like Russia trying to hold California with us trying to mine in India right under the Russian domination and influence?

Mr. WAUGH. I was not thinking of the mining.

Senator MALONE. Would it be very hard, in your opinion, for Russia to destroy anything in the warmaking capacity of India in the first few hours of the conflict? We have to be a little practical in this thing, too.

Mr. WAUGH. When you get into the nuclear field you lose me.

Senator MALONE. A lot of them are lost, I think.

I must say, Mr. Secretary, that I am gratified, I am sure, at the way your testimony adds up.

Mr. WAUGH. Thank you.

Senator MALONE. That you are opposing definitely these trick organizations that have for their purpose without a doubt, on the face of them, a curtailment of the availability of materials to us except at a price, and any international control of commodities, whether through the United Nations or otherwise. And I do understand that you do oppose such arrangements. Is that right?

Mr. WAUGH. Yes, sir.

Senator MALONE. Thank you very much, Mr. Secretary.

I think we will resume our hearings at 2 o'clock.

(Whereupon, at 12:55 p. m., a recess was taken until 2 p. m., this same day.)

AFTERNOON SESSION

The committee reconvened at 2 p. m., upon the expiration of the recess.

STATEMENT OF BENJAMIN GRAHAM, PRESIDENT OF GRAHAM-NEWMAN CORP., NEW YORK, N. Y., ACCOMPANIED BY MRS. FLORENCE DE HAAS DEMBITZ, ATTORNEY AT LAW, WASHINGTON, D. C.

Senator MALONE. The hearing will come to order.

Now, Mr. Graham, we have your record, I suppose, but will you identify yourself for the record? Do not spare the horses. Give us the whole background.

Mr. GRAHAM. I was graduated from Columbia University in 1914. I immediately went down to Wall Street. I have been in finance ever since.

I am president of Graham-Newman Corp., which is a registered investment company, with capital of about $6 million.

I am chairman of the board of Government Employees Insurance Co.

Senator MALONE. Is that here in Washington?

Mr. GRAHAM. Here in Washington. I am a large stockholder.

Senator MALONE. Mrs. Dembitz, will you identify yourself for the record.

Mrs. DEMBITZ. My name is Florence de Haas Dembitz. I am an attorney.

Senator MALONE. Will you identify yourself again for the benefit of the record?

Mrs. DEMBITZ. Mrs. Florence de Haas Dembitz.

Senator MALONE. You are an attorney in Washington, and accompanying Mr. Graham?

Mrs. DEMBITZ. Accompanying Mr. Graham.

Senator MALONE. Are you an attorney for the employees association?

Mrs. DEMBITZ. No, sir.

Mr. GRAHAM. I am a director of a number of corporations, Philadelphia & Reading Coal & Iron, Western Pacific Railroad Co., Atlantic Gulf & West Indies Steamship Co.

I have been a director of a mining company, the Mohawk Mining Co., which produced a good deal of copper in Michigan until the ore ran out.

And I have been a director of a large number of other companies.

I have also done a great deal of academic work since 1937, lecturing at a number of universities and other places, such as the New York Institute of Finance, the New York Stock Exchange Institute.

Senator MALONE. What is the New York Institute of Finance?

Mr. GRAHAM. Successor to the New York Stock Exchange Institute which was originally operated by the New York Stock Exchange.

Senator MALONE. It is independent now?

Mr. GRAHAM. Yes.

Senator MALONE. Tell us more about this insurance company in Washington. How does it operate?

Mr. GRAHAM. Yes, I shall be glad to sell you a policy, sir.

We confine our insurance exclusively to Government employees, college professors, and stockholders. We sell all types of automobile insurance without salesmen and at a substantial savings to the insured.

We also have an affiliated life insurance company and an affiliated finance corporation which finances cars.

I am on the executive committee and am a director in all three companies.

Senator MALONE. What is your title at Columbia University?

Mr. GRAHAM. Adjunct professor of finance at the graduate school of business.

Senator MALONE. What do they call an adjunct professor?

Mr. GRAHAM. I am not actually a member of the faculty. I am a businessman, but in the case of people who are not on the faculty, who give courses at Columbia, they as a matter of recognition, I presume, have created the title of adjunct professor.

Senator MALONE. Have you written any books on the subject?

Mr. GRAHAM. Yes. I have written in finance a very large book called Security Analysis, by Graham and Dodd.

I have written a smaller book called Interpretation of Financial Statements, and another middle-size book called the Intelligent Investor, which has just been revised and will come out next week.

Senator MALONE. That Interpretation of Financial Statements ought to be very interesting. All of them should be very interesting in connection with your testimony, if we could have copies for the committee.

Mr. GRAHAM. Well, I shall be very happy to furnish them on the usual terms, whatever they are.

Senator MALONE. I do not know if the committee has any money to buy books.

Mr. GRAHAM. In that case, I shall be glad to present them to you, personally, Senator Malone.

Senator MALONE. I know they are very interesting subjects.

Mr. GRAHAM. In addition to my work in finance, I have appeared in many cases as an expert witness on valuation of securities. I think I have appeared in more valuation cases than any other living person, in many instances on behalf of Government bodies such as the United States Treasury, and also on behalf of corporations.

Senator MALONE. That is a very interesting subject and one which, I am bound to confess, I have never had the time to study as much as I would like to study.

STUDY OF STABILIZATION OF RAW MATERIAL PRICES

Mr. GRAHAM. Now, coming closer to your subject, Senator Malone, for the last 30 years and more I have been intensely interested in the stabilization of raw material prices. I devised an idea on that subject originally in the depression of 1920–21.

Senator MALONE. Was this stabilization idea applied to the United States or a group of nations, or worldwide?

Mr. GRAHAM. It was originally developed entirely for the United States. It was incorporated in a book, that approach was incorporated in a book called Storage and Stability, published in 1937, of which I see you have a copy.

Then later on when interest in international measures, international stabilization, developed at a rapid rate, I dealt with the subject again on an alternative basis, as an international project, in a book called World Commodities and World Currency, published in 1944, of which you also have a copy.

I have no knowledge of any conspiracy to draw the United States into international engagements in the field of raw materials against the will of Congress, nor have I taken part in any activities of this type.

Senator MALONE. In connection with the stabilization of world currencies, what do you consider one of the principal factors that creates world stability, or what prevents stability of world currencies, the currencies of the various nations of the world?

Mr. GRAHAM. I think there are two basic reasons which are major. One is the inability of many countries to balance their budgets.

Senator MALONE. I guess we are not in a position to criticize that much, are we?

Mr. GRAHAM. Not too much; no.

The other is the instability in the prices of basic raw materials with consequent instability in general business conditions and in other prices and in the volume of production.

Senator MALONE. Does your study of finance indicate to you that it is possible to stabilize the price of raw materials?

Mr. GRAHAM. I believe that it would be possible to do so on a composite basis.

Senator MALONE. What do you mean by composite basis?

Mr. GRAHAM. I think it is possible to stabilize the prices of raw materials generally within narrow limits as measured by either an index number, if you wish to use that, or a market basket containing a number of such commodities.

Senator MALONE. An index number for each material?

Mr. GRAHAM. No; an index number for a combination of a number of commodities.

Senator MALONE. Which ones would you combine in that regard?

Mr. GRAHAM. I would say approximately 20 of the most important raw materials, both agricultural and industrial.

Senator MALONE. Could you name them, roughly?

Mr. GRAHAM. I will give you examples. You would have wheat, corn, and cotton as typical agricultural materials; rubber as an intermediate material—agricultural and industrial; you would have petroleum, lead, copper, zinc, tin, woodpulp as industrial raw materials. Those are examples.

Senator MALONE. That would be raw materials?

Mr. GRAHAM. These are raw materials only that I have been dealing with.

Senator MALONE. Now, you are including what you consider to be the 20 leading materials?

Mr. GRAHAM. Yes.

Senator MALONE. Would you submit to us a list for the benefit of the committee?

Mr. GRAHAM. I have one here that might interest you. This was included in an article which I wrote recently, published in World magazine.

Senator MALONE. Does that include the 20?

Mr. GRAHAM. Yes; I think there are 20 there. Woodpulp is counted twice—once as mechanical and once as chemical.

Senator MALONE. I think at this point in the record we might include the list of materials of How the Basket Would Be Valued, and the blocked in statement under the title of "How the Commodity Reserve Would Opperate."

I presume that is a résumé on the inside page?

Mr. GRAHAM. Yes.

Senator MALONE. Followed immediately by the list, together with their values.

This is based upon 1950?

Mr. GRAHAM. Yes.

I might say that the price level of 1950, as a whole, is not very different from that of 1953.

Senator MALONE. The main thing to know is what year you have assumed.

Mr. GRAHAM. Yes.

(The information referred to is as follows:)

HOW THE COMMODITY RESERVE WOULD OPERATE

A commodity unit, or "market basket," would be established, consisting of a group of basic storable materials, in quantities that reflect their relative importance to world production and trade. A price level would also be established, around which the value of the composite unit would be stabilized. The table on page 50 shows a $1,000 unit which consists of 20 major commodities. Half of the quantities are based on world production, half on world trade, in 1950. The price level given is also that of 1950, i. e., the stated quantities of all the components, taken together, had an average market value of $1,000 in that year.

An agency of the International Monetary Fund, such as an International Commodity Corporation, would stand ready to acquire, at 95 percent of their base value, complete units whenever they were available. It would sell complete units whenever their combined quotations on the world markets rose above 105 percent of the base. The units would be paid for by credits on the books of the fund.

These would add correspondingly to the "hard currency" resources of the central banks of the countries contributing unit components. (Private sellers would be paid just as they are now paid for other exports.) When the commodity units were sold out, the financial transactions would be reversed, and a corresponding reduction would be made both in the commodity assets and in the deposit liabilities of the fund

Suitable provision would be made for economical storage of the commodity units, the costs to be met out of the 10-percent margin between the buying and selling points, and by other arrangements. Countries holding deposit credits with the fund would have the privilege of retaining equivalent values in complete units, as agents of the Corporation, or of taking over such units in exchange for their money claims. The composition of the unit would be changed from time to time, in accordance with an agreed-on technique, to reflect changes in the relative importance of the commodities.

How the basket would be valued

Commodity	World production	World exports	Quantity in $1,000 unit	1960 value of component
AGRICULTURAL	*Thousands of metric tons*	*Thousands of metric tons*	*Kilograms*	
Rice (milled)	98,100	4,230	1,278	$145
Wheat	143,100	16,900	2,000	136
Corn	130,800	4,250	1,690	94
Cotton (raw)	5,410	20,800	102	81
Sugar (raw)	30,400	8,800	490	63
Wool (greasy)	1,650	1,240	36	55
Coffee	2,190	1,780	50	47
Barley	46,100	2,600	609	36
Rubber (natural)	1,890	1,860	48	30
Peanuts (shelled)	7,000	840	97	11
Copra	2,530	1,490	50	10
Jute	1,460	1,150	33	8
Total	470,730	47,940	6,483	716
INDUSTRIAL				
Crude petroleum	486,000	133,350	7,750	113
Pig iron	113,100		1,414	68
Wood pulp (chemical)	20,400	4,650	313	41
Wood pulp (mechanical)	11,700	1,020	159	18
Copper	2,270	1,440	46	20
Zinc	2,110	460	45	9
Lead	1,550	780	29	8
Tin	170	130	4	7
Total	619,300	141,830	9,760	284
Grand total	1,090,030	189,770	16,243	1,000

Senator MALONE. Now, of these commodity units of 20 materials our American basket would consist of a group of basic materials, that is, that do not deteriorate in storage materially?

Mr. GRAHAM. That is right.

Senator MALONE. Of course, some do deteriorate.

Mr. GRAHAM. They could be maintained indefinitely by proper rotation practices. Many of them would not have to be rotated at all.

Senator MALONE (reading):

> A commodity unit, or "market basket" would be established, consisting of a group of basic storable materials, in quantities that reflect their relative importance to world production and trade. A price level would also be established, around which the value of the composite unit would be stabilized. The table on page 50 shows a $1,000 unit which consists of 20 major commodities.

Now, how would you fix the initial price or the index price and to what would it be subject in variation?

Mr. GRAHAM. The price that would be fixed initially would be the price of a given physical market basket of the 20 commodities combined.

There would be no fixing of any individual prices.

As this table shows, if the specific suggestion were adopted, you would have a payment of $1,000 for a combination of 1,278 kilograms of rice all the way down to 4 kilograms of tin, but no specific prices would be paid for individual commodities.

Senator MALONE. But the total at all times would amount to the assumed index price of $1,000 for a certain amount?

Mr. GRAHAM. A certain amount. That would be the central price.

Senator MALONE. Then the amount you would get for the $1,000 would vary with a commodity index price?

Mr. GRAHAM. No, it would not vary by an index of commodity prices, but you could provide for small changes gradually in the relative quantities to reflect changes in the production and consumption pattern as the years go on.

Senator MALONE. Would that price be influenced by the value of money, that is to say, inflation?

Mr. GRAHAM. The object of this is to counteract inflation to the extent possible. If you accumulate under conditions such as we have seen in the last 2 years, a considerable amount of these commodity units, it would then be possible to counteract inflation by sending out these commodity units into consumption when there is a tendency for the price to advance.

Senator MALONE. Could you offset a deliberate attempt, or the deliberate action of a government printing more of its money through deficit financing, and that sort of thing?

Mr. GRAHAM. No, there is no way which I can see under which a mechanism of this sort could spare the individual country from the effects of bad financial policy.

Senator MALONE. Even our own?

Mr. GRAHAM. Even our own. This applies merely to the value of these commodity units.

RELATION OF NATIONAL DEBT TO INFLATION

Now, it is possible for the United States, in my opinion, to have a deficit of moderate size, moderate increase in its debt from year to year, without necessarily incurring such inflation as to make this system inoperable, but that is a matter of opinion, sir.

Senator MALONE. Would you say as a student of finance that we have a debt now of moderate size?

Mr. GRAHAM. The debt is extremely large today, but my own opinion is that in relation to our overall economy it is of a manageable size.

Senator MALONE. You can manage that kind of debt and proceed with it with judgment and maintain it and pay it off finally?

Mr. GRAHAM. I would not add that paying off is feasible, certainly not to the extent of completely paying it off.

I do not consider that paying off the debt is essential to the maintenance of, let us say, today's price level.

Senator MALONE. Do you think that further inflation will be necessary in order to pay the debt?

Mr. GRAHAM. Well, that phrase is a little fuzzy in my mind.

Senator MALONE. You take the fuzz off it. That is why I am asking the question.

Mr. GRAHAM. Normally, the inflation is the consequence of incurring more debt.

Senator MALONE. That is what we are doing.

Mr. GRAHAM. Therefore, to speak of inflation to pay off debt sounds a little contradictory to me.

Senator MALONE. Of course, to me it is the same subject. A $15 billion debt which we started off with in 1932, could be paid off in 1 year now, but we do not have a $15 billion debt; we have a $275 billion debt with continual pressure from the inside to increase the debt limit.

You know that, of course.

Mr. GRAHAM. Of course, I know that.

Senator MALONE. You are also looking at one of the men who helped stop it. Whether I am right or wrong remains to be seen, but that is my conviction.

Now, what do you think the present price of the dollar is in relation to 1934?

Mr. GRAHAM. In relation to 1934, I would say it is about 45 cents.

Senator MALONE. Do you think it is that high? They have changed 2 or 3 commodity indexes to make it look good, but you, of course, know about that. There is no use my explaining it.

Mr. GRAHAM. I think our price level is about 100 percent above prewar, prewar being the 1936–40 average.

Senator MALONE. 1940, that is right. That is when they changed it, and in 1945.

Let us go back to 1934. Do we have a 35-cent dollar?

Mr. GRAHAM. I would not quarrel with that statement. I do not have the figures with me.

Senator MALONE. Could you furnish them for us? I think you have the ability to do it.

Mr. GRAHAM. The relation of today's price level to the average for 1934?

Senator MALONE. Yes. Many believe we have about a 33- or 35-cent dollar.

Mr. GRAHAM. That is certainly true, if you compare it with the dollar of pre-World War I, 1913.

Senator MALONE. Well, let us start with 1934. They do make charts, do they not? It seems to me I have seen charts which show the continual price of money and stability, relative stability, the dips and rises over the years, maybe for a half century.

(Data subsequently furnished is as follows:)

The current cost of living works out at just about twice the 1934 average—"a 50-cent dollar." The index of wholesale prices is now about 232 percent of 1934 average—"a 43-cent dollar."

Mr. GRAHAM. Yes, I have seen charts which go back to 1750.

Senator MALONE. It takes in that 1907 dip that I experienced myself. If you are as old as I am, you remember that.

Mr. GRAHAM. I was only a boy then, but I remember it.

Senator MALONE. Well, it is just the same as it is now. There is no difference in the depressions except the size of them, is there?

Mr. GRAHAM. You are raising a very interesting and difficult question, Senator, as to whether there will or will not be a difference between depressions from now on as compared with those that we have lived through in our lifetime.

Senator MALONE. Now, we are a little bit off the subject, but it is very interesting to me because I am intensely interested in the manipulation of money values for trade advantage, and they all say for stability and the good of the taxpayers, but it generally ends up with the taxpayer behind the eight ball.

I am very much interested in why many economists have been selling to the country an idea that you will not have another depression. I am very frank about it, I do not try to disguise a depression as something new to the people, they are all the same.

It seems to me that complete stabilization, if it were possible for a dictator to do it, would be incompatible with the free economic system.

What do you think about that?

Mr. GRAHAM. I agree on that entirely. That is why the approach I have always taken to the subject has been the stabilization of one key sector of the economy, not an endeavor to stabilize each individual price at all.

Senator MALONE. You have to have some safety valve to let the steam out, do you not?

Mr. GRAHAM. I do not know that I understand that phrase exactly in this context. You mean steam to permit the price level as a whole to fluctuate or individual prices to fluctuate?

Senator MALONE. I am not much of a financial expert, but the safety valve we used to have in business, such as in my engineering business, and I have been 30 years in private engineering, if I became indebted to the bank beyond my earning power, the earning power of my firm, and I owed considerable money, there was a thing known as receivership. It may have been abused at different times, but the theory was not so bad.

Someone took it over and finally took over the business at a price at which they could make it pay.

Is that not what it meant?

Mr. GRAHAM. In many cases, yes.

Senator MALONE. Sometimes they stole a business or two maybe, but that was a matter of enforcement of the law, was it not, rather than the system? Do you not think so?

Mr. GRAHAM. You mean an unfair price?

Senator MALONE. Yes.

Mr. GRAHAM. Yes.

Senator MALONE. What I am getting at is that we have reached that point where we will not let anybody fail in business. We loan the railroads money, we loan the farmers money, and we buy the crops at a price so they will not fail.

So when we do not let them fail, have we not closed the safety valve?

Mr. GRAHAM. I agree with you on that point.

Senator MALONE. When you close the safety valve, you know, sometimes somebody is going to be hurt.

Mr. GRAHAM. I imagine that would have to be the consequence, although I have not been able to picture it exactly. But I agree with you up to the point where I do not see how you can guarantee every business a profit.

Senator MALONE. This is the business we are in now, is it not? The Government has been in this business for over 20 years?

Mr. GRAHAM. I believe that overstates it a bit.

Senator MALONE. How would you state it?

Mr. GRAHAM. I have been in a number of businesses that have not been making a profit.

Senator MALONE. The tendency is to spread the field of guaranties.

Mr. GRAHAM. I agree with that statement.

Senator MALONE. How far do you think that could go in a free economy?

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Mr. GRAHAM. It is very difficult to say.

I was reading a statement made by B. M. Baruch only a week or so ago in an address made on that subject. I rather agree with his viewpoint there which was that while basically we must have a supply and demand economy with the consequences of supply and demand, it is still not true that you could have a completely laissez faire economy so that all consequences of the open market would be suffered by the citizens of this country.

GOVERNMENT INTERVENTION IN BUSINESS

Senator MALONE. They would be insured against loss?

Mr. GRAHAM. I believe there is room for some degree of intervention by the Government.

The thing that I do not believe in at all is that the Government should interevene on behalf of weakly situated people with the result that they would be better off than the average person should be in a stronger position.

Senator MALONE. As part of our economy?

Mr. GRAHAM. Yes.

Senator MALONE. In other words, you finally get down to the point that somebody has to judge whom you are going to include in the fold?

Mr. GRAHAM. Unfortunately, that is so.

Senator MALONE. That has to be a human being and the human element has not been improved much in these last 2,000 years.

Mr. GRAHAM. It might be a group of beings like the Congress.

Senator MALONE. I will not go along with you that that would improve the situation. Especially you take a Congressman who has been elected for the last 20 years, he is clear out of the business of the country and moves away from it. But, of course, there is a saying which I have used quite a few times, and that is that no one can talk quite so convincingly on a subject as someone entirely unhampered by the facts.

Mr. GRAHAM. I do not want to make a case for Government intervention. All my thinking and all my writing has been slanted in the opposite direction, but at the same time I do not want to say that I am unalterably opposed to any kind of Government intervention. That would not be true.

Senator MALONE. Well, if we get away from saving the railroads, saving business, the railroads run just as well under receivership as they run any other way, do they not?

Mr. GRAHAM. Broadly speaking; yes.

Senator MALONE. Finally, if you let the railroad alone, it will come out of the receivership at a point where the freight can start to move at a freight rate where it can be done at a profit.

Mr. GRAHAM. That has been the experience in the railroad of which I am a director, the Western Pacific Railroad, which goes through your State.

Senator MALONE. I remember we loaned them $75 million. Has that been paid back?

Mr. GRAHAM. Yes, the RFC came out pretty well.

Senator MALONE. Did it get all of it back?

Mr. GRAHAM. I think substantially all.

Senator MALONE. The last I heard was that they did not get much of it. But we will let that drop.

Mr. GRAHAM. However, that was the effect of bankruptcy.

Senator MALONE. That was not bankrupted at all. We saved it from bankruptcy by giving them $75 million.

Now, Doctor, as I take it, these materials you have named, these 20, and it might include more or less, whatever seems to be the logical thing, following your line of thinking that is an international stabilization that you have in mind, is it not?

Mr. GRAHAM. In this presentation, yes, an international basis.

Senator MALONE. Would you have a similar situation where there would be a national control, that could simultaneously operate?

Mr. GRAHAM. It would not be part of this arrangement.

Senator MALONE. Not a part of it?

Mr. GRAHAM. It is conceivable that it could be done parallel to this.

Senator MALONE. Have you advocated a national policy of that kind?

Mr. GRAHAM. I have advocated a national policy in my first book on the subject. My present thinking is that on the whole you would get better results through a soundly operated international plan.

(Summarization of the multiple commodity reserve plan by direction of the chairman is placed in the record at this point.)

COMMITTEE FOR ECONOMIC STABILITY, NEW YORK, N. Y.

Organized: To further economic stability, through research and education, and, as a first step to that end, to advocate a multiple commodity reserve, as an adjunct and supplement to our gold and silver redemption fund, thus: (1) Establishing a store of basic, essential commodities that might be availed of in some period of scarcity; (2) effecting a long-needed separation between the problems of bank management and the control of monetary and credit volume; (3) setting up an automatic, impersonal, and effective mechanism for the prevention of inflation and deflation and their multifarious evil consequences, and; (4) providing our economy with a stable unit of value and a sound dollar, with a solid backing, limited issue, and a substantially constant purchasing power.

SUMMARIZATION OF THE MULTIPLE COMMODITY RESERVE PLAN [1]

THE GENERAL PLAN

Provide a monetary base of essential, storable, raw commodities in common use, against which currency would be issued, by which it would be secured, and in which it would be redeemable, thus according exactly the same monetary treatment to a composite group of specified commodities as was formerly accorded to the single commodity, gold.

DETAILS

"Commodity units" would be set up by law. These would consist of a composite of, say, 25 or more basic, storable, raw commodities. The relative amounts of the several commodities in the composite group would be determined by their relative importance in commerce. The size of a commodity unit would be such as to make it convenient for purposes of deposit and redemption. The fraction of a commodity unit that would be equivalent to a dollar would be fixed at the time of the enactment of the plan by the Congress, in compliance with the constitutional provision authorizing the Congress to regulate the value of money (art. 1, sec. 8, clause 5), and might be determined by the average of the market

See footnte on p. 64.

prices of the group of commodities composing the unit over a period of years, say 1921–40. These are matters of not very difficult statistical calculation.[1]

The Treasury would issue legal tender currency against the deposit of warehouse receipts such as are currently dealt in on our commodity exchanges, constituting one or more complete commodity units, or, per contra, the Treasury would surrender such warehouse receipts in exchange for an equivalent amount of currency, just as formerly anyone could deposit or withdraw gold in exchange for currency. So, under this plan, anyone could make such deposits or withdrawals of commodity units or of currency at any time.

Thus the dollar would in effect be a "commodity unit certificate" having all the desirable characteristics of a gold certificate and gold-secured money—solid backing, redeemability, limitation of issue—plus certain important qualities now lacking in our money.

There would be suitable provisions: (*a*) For periodic but infrequent changes in the composition of the commodity units, in accordance with shifts in the relative commercial importance of the various commodities comprising the unit; (*b*) for methods of defraying the expense of storage; (*c*) for substitution, under stated conditions, of "futures" contracts for the actual warehouse receipts; and (*d*), possibly, for the inclusion of substantial components of gold and silver in the commodity units, or the redemption of the certificates in commodities units or gold or silver, at the option of the holder. These and other matters of detail, which do not affect the fundamental principles involved, will, no doubt, be the subject of official studies when the plan is considered by the Congress.[1]

OPERATION

Let us now consider the plan in operation and try to visualize how it would function in practice, and what would be the results:

If, from whatever cause, the aggregate market price of the group of commodities composing the commodity units should begin to fall below their total minting (reserve) value, anyone could buy those commodities on the exchanges, deliver to the Treasury a group of warehouse receipts covering the appropriate amount of each of the commodities, and take out their equivalent in currency. This would have the effect of supporting the market price of the reserve commodities, taken as a group, and, since it would increase the supply of money, would tend to support the general level of prices.

If, on the other hand, the aggregate market price of the group of commodities composing the commodity units should, for any reason, begin to rise above their total redemption value, anyone could withdraw commodity units from the Treasury at the fixed currency value and sell the commodities on the market. The currency thus redeemed would be retired and destroyed. This would have the effect of lowering the prices of these specific commodities, and, since it would reduce the supply of money, would tend to prevent a rise in the general price level.

The limits of fluctuation of the aggregate market price of the group of commodities in the unit would be narrow, depending upon what (if any) "seigniorage" charge was adopted and the commission and other costs of withdrawing and selling units or of assembling them for deposit in the reserve—all together probably not exceeding 1 or 2 percent. The reasons impelling exchanges of commodity units for currency, or vice versa, would be the same as formerly led to deposits of gold in the Reserve banks or the Treasury or to its withdrawal therefrom.

RESULTS

The proponents of this plan believe that it would:

(*a*) Stabilize within narrow limits the average price of the group of commodities composing the commodity unit.

(*b*) Provide our economy with a "sound" (that is, a solidly backed) dollar of substantially constant purchasing power—thus preventing the far-reaching and serious political and social consequences of monetary inflation and deflation.

(*c*) Promote equity as between debtors and creditors, employers and employees, and the parties to all contracts involving the two elements of time and money.

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[1] The reader is referred, for a fuller discussion, to the book, Storage and Stability, listed in the attached bibliography. The committee has a limited number of loan copies that it is glad to send to interested readers, on request. Also, it is planned, shortly, to set up special committees to study various details of implementation. Volunteers are called for.

(*d*) Assist in stabilizing business and economic conditions generally, as more fully developed below.

(*e*) Offer a superior alternative to public works expenditures and other such means of providing employment in times of depression.

(*f*) Go a long way toward eliminating the paradox of "poverty in the midst of plenty" in that it would prevent general surpluses of raw materials from demoralizing the price structure and intensifying depressions. It would remove two depression-accelerating factors: Destruction of the purchasing power of primary producers (farmers especially) and reduction of the volume of bank credit consequent upon the falling value of collateral of all sorts—the "vicious spiral."

(*g*) Create a reserve store of primary commodities which might be of vital importance in some great emergency such as drought, pestilence, or war, and, for the reasons given in the following paragraph, would greatly facilitate the readjustment of our economy to a peacetime basis after the current phase of war expenditure has passed.

(*h*) Tend to raise the scale of living, since it would promote production at maximum levels of consumption, with maximum employment, and would facilitate the adjustments necessitated by technological progress. Unemployment, labor, and business disturbances, insofar as they are caused by instability in the level of prices of basic commodities, would be prevented. Since there would be an unlimited market, at the fixed (minting) price, for the composite of commodities in the unit, a large sector of the economy would be sustained, or even stimulated, in any incipient depression, just as gold mining is now stimulated under similar circumstances.

(*i*) Check inflationary booms by the withdrawal from the reserve of important raw materials, and the consequent redemption and cancelation of the equivalent currency.

(*j*) Operate to protect the banking system and the price structure as a whole against extreme deflations and inflations of bank credit, which have been such powerful factors in price-level gyrations and in resulting banking difficulties during recent decades.

(*k*) Improve facilities for foreign trade and finance because the payment to us, in tangible goods, of sums due us on foreign debts, or for our exports, need not depress our markets but could be added to our store of usable commodities. There could be no competitive depreciation of exchange since the dollar value of foreign currencies would be automatically correlated with the foreign currency price of the composite of commodities in the unit.

COMMENT

This plan does not involve the fixing of the prices of individual commodities, which would be left entirely free to fluctuate with changing demand and supply. What would be fixed, directly and within narrow limits, is the aggregate price of the commodities in the unit, but the relationship between the prices of the individual commodities would be as free to vary as it ever has been. Indirectly, the level of the prices of all commodities would be substantially stabilized, since the play of competition would prevent any large discrepancy between the different classes of commodities.

The plan is automatic, impersonal, nonpolitical, and self-controlling, involving no use of an index number, no curtailment of production or regimentation of any sort, no modification of banking or market procedures, no vesting of discretionary powers in anyone for managing the currency or regulating prices or production or consumption.

Many economists feel that the plan would relieve our bankers and banking authorities of responsibility for the purchasing power of the dollar, enabling them to concentrate on the problems of qualitative (rather than quantitative) credit and on other purely banking matters.

While it is not a panacea, the friends of this plan believe it would facilitate the solution of serious problems that are now presented by the fluctuating dollar.

To those who have not given this plan careful and objective study, it may seem that the claims of its adherents as to its beneficient results are exaggerated, but the committee welcomes concrete criticisms of its analysis of the effects of the plan, as above presented.

The committee also welcomes offers of assistance—moral, intellectual, financial—from anyone who has an interest in its objectives.

PERTINENT QUOTATIONS

David Ricardo (1816): The introduction of the precious metals for the purpose of money may with truth be considered one of the most important steps toward the improvement of commerce and the arts of civilized life; but it is not less true that, with the advancement of knowledge and science, we (may) discover that it would be another improvement to banish them again from the employment to which, during a less enlightened period, they had been so advantageously applied.

Herbert Hoover (1925): What we all want from this economic system is greater stability, that men may be secure in their employment and their business.

Owen D. Young (1929): * * * when any sudden change affects the purchasing power of money, it touches every kind of moral question and every kind of obligation.

Lord Stamp (1928): * * * the problem of the price level is the most important single problem of our age * * * it is the most litterly practical of all questions * * * the first necessity of thinking today on social questions.

Lionel D. Edie (1931): Central banks should aim at so regulating reserves of the banking system that the outstanding credit built upon those reserves will expand at the same rate as the long-term growth of production.

Franklin D. Roosevelt:

March 4, 1933: * * * there must be provision for an adequate but sound currency.

July 3, 1933: Let me be frank in saying that the United States seeks the kind of dollar which a generation hence will have the same purchasing power and debt-paying power as the dollar value we hope to attain in the near future.

King George V (1933): It cannot be beyond the power of man so to use the vast resources of the world as to ensure the material progress of civilization.

Henry Ford (1936): What we need is some financial engineers.

Simeon Strunsky (1936): We know that depression is the enemy of democracy.

Paul Einzig (1936): The admission of the principle that non-perishable staple commodities can be included in currency reserves to a limited extent would go a long way toward solving the world's monetary problems and also the present problem of surplus stocks.

Alvin Johnson (1937): We are all fairly agreed as to the qualities we wish to see realized in our standard money. We want it to be as nearly as possible stable in value. We want this stability to be maintained by impersonal forces. Mr. Graham's invention (the multiple commodity reserve plan) is designed to meet both requirements. The invention is of such startling simplicity that everyone who examines it must feel that he once had the idea himself.

Henry A. Wallace (1937): From the standpoint of the national interest, the consuming interest, and the agricultural interest, the increased stability of supply and price that would come with the ever-normal granary is essential.

Board of Governors of the Federal Reserve System (1939): The Board of Governors is in complete sympathy with the desire to prevent booms and depressions, and has always considered it its duty to do what it could to help accomplish these results.

Benjamin H. Beckhart (1940): There is general agreement among monetary theorists that the objectives of monetary policy should include a reduction of cyclical amplitudes and a furthering of continuous maximum production at minimum real cost.

W. Randolph Burgess (1940): * * * confidence in our money is the basis of our system of free enterprise.

Malcolm A. Muir (1940): Mismanagement of credit and money * * * is a principal factor leading to the danger of the destruction of the system of private enterprise.

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Senator MALONE. You would let the national one go?

Mr. GRAHAM. I do not think the national one would be necessary, but it need not be ruled out.

I might add that another formulation of this plan suggests that several separate national operations be used simultaneously with more or less the same result.

Senator MALONE. You mean several separate national plans?

Mr. GRAHAM. That is right.

Senator MALONE. Taking in separate commodities, separate groups?

Mr. GRAHAM. Either separate groups of commodities, or separate weights in quantity.

Senator MALONE. But as a group?

Mr. GRAHAM. In each case as a group.

Senator MALONE. I just wanted to distinguish and separate what we are now discussing.

Now, let us get on to the international. I would not like to take your time and the time of the committee, as long as you both must return today, in going too much into national control, but when we send you a copy of your testimony you understand you can add to it for completeness, or correct any statement you may have inadvertently made off the cuff. We are not trying to catch anybody in a hole. We want to learn and to be sure we have the whole picture.

But could you then include your idea of national control of separate groups or weights as a separate plan?

Mr. GRAHAM. Alternative plan, sir?

Senator MALONE. In your own way, whatever you propose, but I presume they would be separate from the international plan, would they not?

Mr. GRAHAM. Yes; they would not be necessarily connected with any single international plan.

Senator MALONE. I would be particularly interested in how you would correlate the different standards of living all over the world. That is to say, a few cents a day are paid in India, in parts of Africa, maybe half of the world works for a few cents a day in wages, and we will say from 50 cents a day up to $3.50 a day in practically every nation except Canada.

What factors would be used to correlate this whole international control?

Mr. GRAHAM. Senator, I would like to make a brief statement on the subject. I do not conceive of this as an international control operation at all. It is an international coinage operation, pure and simple.

Senator MALONE. How do you identify it as coinage?

Mr. GRAHAM. It is coinage because the operation of this plan is identical with the operation of the gold or silver standard in its mechanics. The only difference is that instead of stabilizing the value of a single commodity such as gold and silver and issuing money against it and canceling money against delivery of the gold and silver, exactly the same operation is done with respect to the market baskets of basic commodities taken as a whole.

There are no controls over production or consumption or on the individual prices of the commodities.

OPERATION OF MEDIUM OF EXCHANGE UNDER STABILIZATION PLAN

Senator MALONE. The index price or the index number representing these commodities then would really represent the value of money?

Mr. GRAHAM. That is correct, sir.

Senator MALONE. How would you have your medium of exchange operate?

Mr. GRAHAM. The medium of exchange would be precisely the same as it is now, which is preferably paper dollars in all parts of the world.

Senator MALONE. You would not have any silver dollars at all?

Mr. GRAHAM. I have no objection whatever to silver dollars. I am rather fond of them, Senator.

Senator MALONE. Would you like to have a few $20 gold pieces? They feel awfully nice in a pocket. I have not had that experience for some time. They carry with them a feeling of security.

Mr. GRAHAM. I agree that a gold piece is a more impressive thing to have in your hand than a $20 bill.

Senator MALONE. There may be a reason for that. I wonder if the reason is that you can take a little lump of gold, whether it has any nation stamped on it, or not, or a little lump of silver, and trade it for something to eat regardless of its stamp, whereas paper, if it is not stamped, is a little hard to exchange.

Mr. GRAHAM. I will not quarrel with that, sir.

Senator MALONE. For a couple thousand years about half the nations have used gold, and about half of them have used silver. There is a sort of confidence in them, is there not?

Mr. GRAHAM. It is obvious, Senator, that a piece of gold, or a piece of silver is prima facie preferable to a mere piece of paper.

Senator MALONE. The only reason for that is because it is pretty hard to carry a bushel of corn in your pocket, or a gallon of milk and trade it for something.

Mr. GRAHAM. That is the point I want to make, that if your pieces of paper were warehouse receipts for bushels of corn or for pounds of copper, lead, or zinc, they would have the same basic function as the old gold certificate, which represented a gold piece deposited against them.

Senator MALONE. They are representative as long as the people behind them can make good.

Who is going to be behind this coinage?

Mr. GRAHAM. It was always physically possible to exchange gold certificates for gold, because there was gold equal to the amount of gold certificates. The difficulty, as you know, was to exchange the other kinds of paper money for gold.

Senator MALONE. It is not possible now to exchange gold certificates for gold today?

Mr. GRAHAM. I said it was physically possible, but it is not permitted.

Senator MALONE. It is not physically possible now.

Mr. GRAHAM. I do not think it is legally possible to own gold certificates.

Senator MALONE. I say it it not physically possible.

Mr. GRAHAM. In that sense, yes.

Senator MALONE. I had an enlightening experience in China. I was practically in every city in China, in 1948. In Peking we found that great northern general at night, without lights in the car.

In Shanghai before I went up there the State Department officials were explaining to me why Chiang Kai-shek was such a terrible man.

Of course, I was not too much impressed by it, but I did not know too much about it, either. I was just listening.

Finally I said, "Tell me one of the terrible things he has done."

He said, "He called in all the gold and silver and jewelry and everything and issued paper money. Now the paper money is not worth as much. You have to have a sense of humor around here to get along."

I said, "Well, he had a precedent for that, did he not?"

Well, that settled that business.

Is it not true that about the first thing any ruler does that wants to get control of the people really without shooting or imprisoning them is to get control of the thing that they have been using for money for a long time?

I know you have studied the history of money. Is that not about what he does?

Mr. GRAHAM. I think once a ruler has established himself as the sovereign power——

Senator MALONE. Then he can bring it in and revalue it at a higher value and make himself some money.

Mr. GRAHAM. Well, in most cases I am afraid that thing was done to meet the expenses of the State.

Senator MALONE. You are familiar, of course, with the manipulation of foreign currency for trade advantage, the multiple values for the money, such as the pound and peso and all the rest, for certain purposes?

Mr. GRAHAM. I am familiar in a general way. I have not had occasion to operate in foreign exchanges.

Senator MALONE. The only operation I had in foreign exchanges was in the Army in Europe. I visited all the European nations in 1947 and the Asiatic nations in 1948, but in studying the record, for example, in Chili, a very friendly country to us ordinarily, there were 7 values for the peso. One was when an American company was buying pesos to pay their help, at 19.73 pesos to the dollar.

The banking rate was about 150 to the dollar. The street rate was about 160.

Every special transaction had a value for the currency. But the main objective was that America could not win.

Now, I asked this question a while ago for a purpose, as to how you would bring the nations into line and prevent that manipulation of currency and the manipulation of trade permits, exchange permits, quotas, and all that sort of thing.

Mr. GRAHAM. May I say that this program relates solely to the establishment of a dollar value in the international market for the market basket of commodities.

That is this unit, which you have seen before you, would be worth a $1,000 more or less in the markets of the world where these commodities are traded.

Senator MALONE. That would be in England, Belgium, Chili, and in America.

Mr. GRAHAM. If you take their world markets, yes, and where you have an established single exchange rate between a foreign country and ours, they would have a fixed value in terms of those commodities.

Senator MALONE. The same value.

Suppose you were unable to control the value of their money and they could establish a new value for a certain purpose, then your suggestions would have to be abandoned, would they not?

Mr. GRAHAM. I do not agree with that.

Senator MALONE. I am asking for information.

Mr. GRAHAM. If you take England as an example, it will simply go to the position of Chili, namely, that internally England would have a currency value and perhaps a price level which is quite indefinite.

But the international value of the commodity basket in terms of dollars would still remain. England would be the loser by that, in my opinion.

Senator MALONE. You mean through her manipulation of values she could not figure any kind of manipulation to make a different value of this basket in her nation?

Mr. GRAHAM. In her own nation, yes. We could not expect to control, and no one should try to control the internal price level of other countries.

Senator MALONE. Now, they control 45, 50, 55 nations, or entities with their sterling bloc, about half the world, do they not?

Mr. GRAHAM. There is a large sterling bloc. The degree of control over their internal price level is a matter of argument.

Senator MALONE. I do not want to argue about it. The facts are there and they do control it through preferential rates. They can buy a pound of wool at entirely different prices in Australia, than you can in the United States, and it is through preferential rates.

Mr. GRAHAM. You are correct in saying that the internal price level of England is under the control of England, and would remain in the control of England.

Senator MALONE. The entire sterling bloc.

Mr. GRAHAM. Presumably the sterling bloc would remain under the control of countries in the sterling bloc whether you had this plan, or did not have it.

Senator MALONE. Could that not prevent the plan from working?

Mr. GRAHAM. I do not think so except that it would be similar to the question whether the reestablishment of the gold standard of the United States could be said to be of no value internationally, because other countries, most other countries, were not on a gold standard basis.

Senator MALONE. Gold seems to be recognized wherever it is offered for payment, is it not? There was something about Russia paying for some things in gold in England, in European countries?

Mr. GRAHAM. Yes, sir. That is partly due to the fact that we buy any quantity of gold that is available at $35 an ounce, I believe.

But there is in addition independent value of the gold undoubtedly.

Senator MALONE. Would you suggest that we do not have any fixed value on gold at all?

Mr. GRAHAM. I make no suggestion about that at all, sir. I have never made any proposals with respect to any change in the gold situation.

Senator MALONE. Take this manipulation in South America on this peso, how would you bring Chile into line if she could profit by this very thing she is doing?

Mr. GRAHAM. I think you are asking about a matter which is not related to this plan, but is related to our present difficulties with Chile, if we have difficulties.

Senator MALONE. If they could profit by a different evaluation, then they certainly in their present frame of mind would fix it.

Mr. GRAHAM. My point is that what Chile does with her peso will always be a matter independent of the working of a fixed international value for money.

Senator MALONE. The currencies of the world now are independent, but what we are doing is making trade agreements with them under their present setup in each case and they then change it, create a new value for currency in a certain field and defeat the objective of the trade agreement.

Assume a trade agreement is right when you make it; it is defeated almost immediately.

Mr. GRAHAM. I know if you have certain types of currency manipulation, certain types of discrimination and so forth, the objective of a trade agreement would not be realized.

Senator MALONE. Are you aware of what Mexico has done in the last 3 or 4 months in the manipulation of their currency?

Mr. GRAHAM. Mexico has devalued the peso.

Senator MALONE. We devalued the dollar, but we did not do it by order. We kept printing it until it was worthless.

Then we adjusted the wages to keep up with it. Their people are complaining about the wages, because they lowered them by lowering the value of the peso.

All we are doing is fooling each other.

Now, I should like to know how you are going to make this thing work unless you control each country's money.

Mr. GRAHAM. I would like to present the idea in slightly different form.

Senator MALONE. All right.

Mr. GRAHAM. The object of this idea is to establish a world market value for a group of basic commodities.

Senator MALONE. Who is going to guarantee that price? Who is going to stabilize this thing? Sometime you have to come home.

Mr. GRAHAM. May I finish the sentence and come to your question?

The important thing is that this group of commodities should have a stable value similar to the values which have been established for gold and silver here.

Senator MALONE. Well, you see, we are the only one that pays it. Would that be the way with commodities?

Mr. GRAHAM. These commodities will be commodities of continuous use and consumption, and stable values established for them will be useful to the business of the world.

Now, when you ask what the effect is of vagaries and errors committed by other countries——

Senator MALONE. These are not errors; they do it for advantage.

Mr. GRAHAM. Or efforts by them to take advantage of the situation, the international situation, my answer is that it will be easier to establish the type of international stability, currency convertibility, and other desirable international relationships, once you have established a fair value for raw materials to begin with, than it would be without it. You have to begin somewhere.

I think that establishing a stable value for raw materials is a very big beginning for the objective that you have, Senator, and that I have, a more honest world situation in trade.

Senator MALONE. If you got them all to agree to it and live up to it.

Mr. GRAHAM. It would be easier for them to live up to fair dealing with stable commodities than it would be with unstable ones.

Senator MALONE. Somehow there is a missing link. Either I do not understand it, or I have not caught the connection as to how it is going to benefit the Malayan States, for example, in the stabilization of the price of tin. How would it?

Mr. GRAHAM. Tin is one of these 20 commodities which have been subject to wide fluctuations in prices, not only in recent years, but in many years.

Senator MALONE. Certainly England, which controls the Malayan States, produces no tin.

If you are talking about helping England by stabilizing the price of tin, I can see that, but I cannot see how you are helping the Malayan States under the present situation because they do not own the tin they produce.

Mr. GRAHAM. I could not make a statement about that that is worthwhile, as to what extent the natives of Malaya benefit from a stable price of tin as against an unstable price.

Senator MALONE. Have you been to Malaya?

Mr. GRAHAM. I have not been there.

Senator MALONE. I have been there. If you can see how they have benefited by anything for 2,000 years, it is a mystery.

Mr. GRAHAM. Tin represents seven-tenths of 1 percent of the total value of this component in terms of 1950 prices.

Senator MALONE. If you coin this money, is this money going to be put out by the United Nations or a world organization?

Mr. GRAHAM. The specific program that I have suggested is that the money will be in the form of deposits with the International Monetary Fund of a type similar to our present capital interest in the International Monetary Fund.

Senator MALONE. Who would put the money in?

Mr. GRAHAM. The deposits would be created by the act of purchase of these commodity units. They would own the commodities and that would be their assets.

Senator MALONE. How would they get possession of the commodities.

Mr. GRAHAM. They would purchase them in the open market.

Senator MALONE. With what?

Mr. GRAHAM. They would buy them with credits deposited to the credit of those nations which supplied them with the commodities.

Let us assume that $1 million worth of these commodities was bought at the suggested 95 percent.

My program, as you may know, is that the price is not fixed at 100 percent, but may fluctuate from 95 to 105 percent.

Senator MALONE. Of this group?

Mr. GRAHAM. Yes.

Senator MALONE. Tin might go up 50 percent, wheat might go down 50 percent, but it adds up?

Mr. GRAHAM. It would add up somewhere between 95 and 105 percent of the middle value. When the value tends down to the 95 percent lower limit, the monetary fund would acquire these units by purchase in the open market and pay for them by creating credits to the countries who supply component parts of the units.

Senator MALONE. Let us say, then, that Belgium or England put in $1 million worth of tin, how would you pay England?

Mr. GRAHAM. England would have a credit of $1 million on the books of the International Monetary Fund.

Senator MALONE. Just a credit?

Mr. GRAHAM. That is right.

Senator MALONE. How would you pay their help? You have to have more than credit. You have to give them money.

Mr. GRAHAM. That $1 million credit becomes an asset of the Central Bank of England.

Senator MALONE. What could they do with it?

Mr. GRAHAM. In turn, it is offset by a deposit with either the Central Bank or the member banks in England to the benefit of the producers, to the credit of the producers of tin.

So that the tin producers would have a bank balance of $1 million to show for their $1 million of tin which would be identical with the bank balance which they would get if they sold any other $1 million of tin in the open market of the world.

Senator MALONE. I still lose you, or you lose me, in this credit business as to what they use for money to pay their help while they are catching up with this credit.

Mr. GRAHAM. They use exactly the same money, sir, as they used in connection with the production and sale of any other kind of tin. They use bank money, or paper money, if you wish.

Senator MALONE. Let us get closer home. It may be that might be an answer to our surplus corn, wheat, and butter. We sell this Central Bank all the surplus wheat, corn, and butter. At what price would we sell it?

Mr. GRAHAM. My suggestion on that score is that we would be in a position of transferring possibly $2 billion or $3 billion worth of complete commodity units to the International Monetary Fund and receive the equivalent in money of $2 billion to $3 billion.

Senator MALONE. Let us take that price. Here we are paying a certain price for wheat. The world price is a certain price. What would we get? World price, or our price?

Mr. GRAHAM. I am sorry to tell you, sir, that the best we could ever hope to get on the transaction would be the world price.

Senator MALONE. Are you not talking about one economic world where somebody makes up the difference between the wage standard of living here and in the other countries until we all live considerably alike, kind of average the thing?

Mr. GRAHAM. I doubt if that is so, sir.

Senator MALONE. I would like to have you explain it.

Mr. GRAHAM. Regardless of any differences in the standard of living, you have always had world prices for these commodities. They have been higher, or they have been lower, but in the world markets they have been identifiable and calculable, and those are the prices I am dealing with.

Take the price of wheat, for example. The price of wheat with which we would have to deal here would be the world price of wheat, which, as it happens now, is controlled somewhat by the international agreement which you do not like, and I do not like.

Senator MALONE. And it is not working.

Mr. GRAHAM. Because there is too much wheat around.

Be that as it may, I have always been an opponent of international commodity agreements. I do not believe it is feasible, and satisfactory, to endeavor to control the price of an individual commodity.

Senator MALONE. You are in the finance business. I have just been an engineer working for organizations, first as an engineer, and then as consultant as the years went by and in private business of my own, but you can make pretty nearly any business work if somebody picks up the check at the end of the month, or the year?

Mr. GRAHAM. Yes.

Senator MALONE. So as long as we pick it up, which we have been doing now ever since I have been in the Senate, and for some years previous to that, I guess pretty nearly anybody's scheme would work. Laniel's scheme will work as long as we give him $100 million every time he comes over.

I had a 3-hour talk with him in 1947. I asked who was going to finance it. He said, "You are."

He won.

Is that your idea, that we sort of pick up the check and make it work?

Mr. GRAHAM. Up to now we have had five different ways of financing other countries in my lifetime, all giving away money with nothing in return.

Senator MALONE. What are those?

Mr. GRAHAM. We started with the war debts in World War I. Then we made large loans to foreign countries in the 1920's.

Senator MALONE. Who made those?

Mr. GRAHAM. They were made mainly by private investors.

Senator MALONE. Then they sold the stock to our taxpayers, and it all came out of the same pot.

Mr. GRAHAM. Many of those loans were defaulted.

Senator MALONE. They were defaulted, but they were paid for by our taxpayers. That is where they got the money.

Mr. GRAHAM. I would say that that loss fell mainly on investors, the people who bought the 8 percent bonds.

Senator MALONE. They are the ordinary taxpayers.

Now, I have a lot of friends in Wall Street and I am for them. They are smarter than I am because they had a way of taking it off the top. When they sold the securities they got their percentage. Is that not right?

Mr. GRAHAM. Yes.

Senator MALONE. When they sold the bonds or the securities to the American taxpayers that was merely a medium of transferring the money abroad, was that not it, and they got a little percentage for doing that.

Mr. GRAHAM. Yes.

Senator MALONE. And they could go to the nightclubs and the theater and visit the ranch on weekends and everything was wonderful, except the taxpayers picked up the check in the matter of buying the securities ahead of time and they were led to believe they would get interest and their money back. Is that not right?

Mr. GRAHAM. Yes, but I would change the word to "investors" rather than "taxpayers," just for clarity.

Senator MALONE. Who are the investors? They are the taxpayers, are they not?

Mr. GRAHAM. They are the taxpayers, but the taxpayers are not necessarily investors.

Senator MALONE. If you are a taxpayer and you are successful, you are an investor.

So the taxpayers are buying these securities, the two terms are practically synonymous in the long run.

The reason I lump them together is because they sold the securities through a private bank and took their percentage. The banks did not lose any money, did they?

Mr. GRAHAM. Not typically; no, sir.

Senator MALONE. They did not lose any money unless they themselves bought some of the bonds.

In other words, like the prospector that started the rumor that there was a big discovery and everybody left town but him. Two days later he said, "Maybe there is something to that."

Now, the point is that a fellow said one time it does not matter how you get it away from the little people, whether it is as a taxpayer,

securities buyer, or some other way, he still pays it. I think somebody put it this way: Whether you stand up in the stirrups or sit down in the saddle, the weight is still on the horse. Is that about right?

Mr. GRAHAM. Correct.

Senator MALONE. Then what are we talking about? We are talking about the taxpayers of America stabilizing this deal. Somebody has to be buying this money.

Mr. GRAHAM. Could I finish my thought, sir?

We also made lend-lease advances during World War II.

Senator MALONE. That was against my judgment, too.

That is one thing that made me so mad. It just accumulated and I finally ran for the Senate.

Mr. GRAHAM. That fourth thing we did was to make available to foreign nations American dollars through our contribution to the International Monetary Fund.

The fifth thing we did was to export a good deal of commodities against a large amount of gold which we received. That, of course, was undoubtedly far superior to the other types of settlement which were not settlements at all.

I call your attention to the fact that there was a time in the 1930's when the percentage of gold we held was so large that there was some uneasiness on our part as to the ultimate status of gold.

Senator MALONE. Who was worrying then about the status of gold?

Mr. GRAHAM. I would say there was a fairly general worry about it among students of the subject. Of course, World War II changed the picture completely in that regard.

Senator MALONE. What changed it?

Mr. GRAHAM. World War II changed that picture completely in that regard because in view of the very large expenditures in World War II a rather considerable redistribution of gold was effected which improved the situation.

Senator MALONE. The occupation that we have had ever since World War II, the distribution of United States wealth throughout the world?

Mr. GRAHAM. Yes.

Could I finish my thought on this, because I feel it is an important matter, to think of this plan in relation to the previous ways which we have followed of dealing with the problems of other countries. This plan provides solely that if we do pay out any money in connection with it, we receive for it physical, tangible commodities which are usable and important for us not only in peace, but particularly in war, which will be under our control at all times, and which will be in proper balance.

Senator MALONE. In other words, we get crude petroleum, woodpulp, zinc, lead, barley, peanuts, wheat, corn—we would be buying more of this stuff instead of trying to sell it?

Mr. GRAHAM. Yes.

Now, that brings up the second point, sir. This problem we have of selling our surpluses is entirely a commercial problem. It is not a basic economic problem.

Senator MALONE. We created that ourselves, did we not?

Mr. GRAHAM. Well, my point about it is that the surplus in and of itself is not a problem. Let me call your attention to the fact

that our chief source of wealth in this country is our resources underground—outside of the values in our people.

Senator MALONE. What do you mean by our resources?

Mr. GRAHAM. Resources underground are the fertility of our soil, our coal, and our metal. That is our chief economic resource.

Senator MALONE. How do you realize on this resource?

Mr. GRAHAM. Now, this is the interesting point. You realize on it by handling them in a sound businesslike way through producing and consuming. If you overproduce and are faced with the problem of having to sell in the open market where the buyers are not present, your very abundance of resources creates an economic problem of the kind you must have seen in 1932 and 1933.

Senator MALONE. You are talking now about this stuff that comes from underground, like the metals? You are talking about the wheat and corn and so on?

Did we not create our own problem in corn by establishing a guaranteed profit, like we did in potatoes a few years ago?

Mr. GRAHAM. I agree that we have compounded that problem through that policy which I have not approved of, but I do not think it is fair to say that the problems of wheat or overproduction of wheat or copper, for that matter, in our experience——

Senator MALONE. In copper we do not have an overproduction.

Mr. GRAHAM. I say overproduction of copper in my experience. It has not been due entirely to mistakes in Government policies. We have had a situation under which effective demand fell short of supply.

Senator MALONE. The effective demand has fallen short in wheat and corn. Is that the problem?

Mr. GRAHAM. No; my belief is that wheat and corn are relatively overproduced.

Senator MALONE. We have three crops each in storage.

Mr. GRAHAM. In relation to our commodity structure generally, wheat and corn are overproduced.

I do not believe their price should be supported in the way it has been supported.

But that is a separate question, sir.

Senator MALONE. That is your national business?

Mr. GRAHAM. That is national.

Senator MALONE. You are going to give us that in your setup?

Mr. GRAHAM. Yes. It is an entirely separate question from the question whether it is sound policy to promote balanced production of commodities generally with free prices to reflect relative supply and demand conditions and, at the same time, to impound surpluses, overall surpluses.

Senator MALONE. How do you control supply and demand and still have free enterprise and free economy?

Mr. GRAHAM. Sir, my last sentence was that you preserve the working of supply and demand by permitting the individual prices to fluctuate, as you remarked before.

Senator MALONE. But only that 5 percent.

Mr GRAHAM. No, sir; that is the overall price that fluctuates 5 to 10 percent, but the price of an individual commodity can fluctuate much more widely if it is individually overproduced, which is the thing which should bring it in check.

Senator MALONE. I would like to have you tell me who is going to pick up the guaranty and backing behind this new currency.

Mr. GRAHAM. The backing behind the currency, sir, are the physical commodities which are actually there and held in the same way as gold has been the backing behind our gold certificates.

The thing that the United States would be called upon to do if it were a party to this program would be to recognize the validity of international moneys backed by these physical commodities and accept it as money the same way as they would accept gold.

Senator MALONE. That would be new money?

Mr. GRAHAM. Yes.

Senator MALONE. Coined by whom?

Mr. GRAHAM. It would be coined through the operation of the International Monetary Fund, or any other similar agency set up for the purpose.

Senator MALONE. Who would control the International Monetary Fund, the United Nations?

Mr. GRAHAM. No; that is a separate organization set up by a separate charter. I do not consider it under the control of the United Nations.

Senator MALONE. Who would control this?

Mr. GRAHAM. You will recall, sir, there is a coinage operation that would be carried on under specific instructions and mechanics, which are not subject to discretionary change by anyone.

Senator MALONE. What that would entail would be a modification of our Constitution, article I, section 8, where it says that Congress shall coin money and fix the value thereof.

Mr. GRAHAM. No, sir; because there was no proposal here that any money should appear in the United States.

Senator MALONE. You would have to accept the money for the commodities?

Mr. GRAHAM. You simply accept the deposits just as you are now accepting deposits as a result of any other type of international transaction.

Senator MALONE. But that is in terms of dollars we accept it.

Mr. GRAHAM. That is right. These would be dollars, too.

Senator MALONE. In terms of dollars?

Mr. GRAHAM. Yes, sir.

Senator MALONE. It would be international money not connected with any nation at all, but the sterling bloc would take it in terms of pounds?

Mr. GRAHAM. No. Their interest as a depositor at the International Monetary Fund would be expressed in terms of dollars, because that, as you know, is the unit of account of the International Monetary Fund, but they could convert it into pounds as they please.

Senator MALONE. And at any rate of exchange which they want?

Mr. GRAHAM. Which they now do.

Senator MALONE. Still giving them the advantage of the manipulation of currency.

Mr. GRAHAM. There is nothing we can do, in my opinion, or should try to do, to control the internal affairs of other countries.

Senator MALONE. I am trying to point out unless you did control it, I do not see how it could work. Somebody would have to control the exchange.

Mr. GRAHAM. Well, that must be a matter of opinion. I have studied that a long while, sir, over 30 years. I do not admit that the effective working of this thing requires us to control the internal affairs of any other country or any other country to control our internal affairs.

Senator MALONE. As far as I can understand it, and I have stayed on this subject a little more than I intended to, and I hope you will clarify it to the best of your ability for the committee in editing your statement, it does entail a new kind of currency entirely put out by the Monetary Fund or some central agency that would be created?

Mr. GRAHAM. That is correct, sir, in this form.

Senator MALONE. And when you sold commodities to the International Exchange you would get this money in return, and we would control our dollars, the sterling bloc would control the value of the pound, which means the Bank of England; France would control the value of the franc; Chile would control the value of their peso, just as they do today, and business would go on on that basis.

Mr. GRAHAM. The only difference is this, that a great many people are working in the direction of convertibility of exchanges.

Senator MALONE. They only do that when we furnish the money.

Mr. GRAHAM. I think that most responsible people recognize that as a desirable objective.

Senator MALONE. It is not desirable enough to put up $5 billion.

Mr. GRAHAM. I am not recommending that. On the contrary, what I want to say is that without putting up any additional money, this type of operation might contribute very greatly to the attainment of convertibility which is something that not only is good for us, but I am convinced is good for most other countries.

Senator MALONE. I have just one more question, and then you clarify all this to the best of your ability when it comes back.

How can you hope to establish anything of that nature without some central control over the amount of money that each nation might print or issue of its own currency?

The amount, of course, in the long run, I think you will agree, controls the value to a certain extent.

Mr. GRAHAM. Yes. sir.

Senator MALONE. The reason we have a 35-cent dollar now—and I hope you will compute what we really have in comparison with 1934—is because we just have about three times more of it, or more.

Mr. GRAHAM. Maybe more than that.

Senator MALONE. At least it is probably not relative, it is probably not in accordance with the direct amount.

But the more of it there is, the less its value?

Mr. GRAHAM. In a general way.

Senator MALONE. Then we raise the wages to conform. The reason a plumber gets $35 a day, in some places, or whatever it is, instead of eight or ten a day in 1934, is because it will purchase just that much less, and in general, whether we admit it or not, wages are fixed on what a man has to eat and wear to be decent in public and to send the kids to school.

Mr. GRAHAM. You have described the working of inflation quite well, but I think you should add there has been an underlying tendency for the real standard of living to increase in this country.

Senator MALONE. There is no question of that, on account of inventions, on account of laboratory experiments, and on account of natural progress. But it has nothing to do with the destruction of values deliberately through inflation.

Mr. GRAHAM. I agree.

Senator MALONE. Inflation does not raise the standard of living because the only raising of living standards is through experiments in laboratories that make a man produce more.

Mr. GRAHAM. I am a great opponent of inflation. I am inclined to agree with your statement very strongly, even though some words may be questionable.

Senator MALONE. We were sold a bill of goods and I do not think it was hard to sell us. The saleman's name was Lord Keynes. He told the President the more we owed, the more wealthy we were and, therefore, we started to issue more bonds and spend more money and give more away.

Now, the two of them agreed that was the fact. Now we owe $275 billion and they are both dead. We pay about $7 billion a year interest which is more than twice as much as it cost to run the Government when one took charge of ours.

Is that about right?

Mr. GRAHAM. I think the statement about the relationship between our present interest charge and the budget in 1932 is correct.

Senator MALONE. I think so approximately, at least the principal is right.

Now, Dr. Knorr and yourself, Mr. Graham, have worked together quite a bit in some of these matters?

Mr. GRAHAM. No, that is not correct. I think I should have made a statement on the matter of my relationship to this program.

As you were advised, the committee of experts was appointed pursuant to resolution.

Senator MALONE. Who were those experts?

Mr. GRAHAM. I believe I can state the five names. The chairman was Dr. Goudriaan of Holland.

There was Mr. Francisco Garcia Olano of Argentina.

Mr. Sumitro Djojhadikusumo, of Indonesia.

Mr. Carter, of Great Britain.

And Dr. Knorr, who, I understand, was nominated by the State Department of the United States.

Senator MALONE. Could one of you furnish the background of these men? They are some very strange names to me, and I am sure would be to the committee. Give us the background of their experience in connection with other organizations.

Mr. GRAHAM. Dr. Knorr, are you capable of doing that?

Mr. KNORR. I do not know that I can for all of them. I do not know them well enough. I never knew them until I met them in New York. They were all appointed by the Secretary-General of the United Nations.

Senator MALONE. Did you know who they were?

Mr. KNORR. I think so. My guess is that most of them were actually appointed at the suggestion of the Government of the country from which they came.

Senator MALONE. Could you secure their records from the United Nations?

Mr. KNORR. I could not, no. I am not a member of the United Nations. I do not have access to the records. I know of some people, I remember what they told me in the course of luncheon conversations.

Senator MALONE. Are not their reputations and their records a matter of record up there in some place? You sat down and worked with them. Would you not be able to secure that for us?

Mr. KNORR. No, I have no access to the records of the United Nations. I am not a member of the United Nations.

Senator MALONE. You are a member of a very important committee there.

Mr. KNORR. Still I am not a member of the United Nations. I have no right there. They could throw me out if I walked in the place.

Senator MALONE. Mr. Graham, what was your relationship then with this report rendered by the experts?

Mr. GRAHAM. Dr. Goudriaan, who was the chairman, happened to have ideas on the subject of the commodity reserve plan which was closely similar to mine and was published at about the same time, namely, 1932, 1933, and 1934. I have been in correspondence with him and I have met him once, I believe, when he was in this country.

Senator MALONE. In South Africa?

Mr. GRAHAM. No; at that time it was in Holland. He had been the head of the Dutch railway system in Holland. Then later he moved on to the university in South Africa.

Senator MALONE. These were the experts?

Mr. GRAHAM. They were the experts. I know only Dr. Goudriaan. I believe I met, or might have met, Mr. Knorr once at Stanford University a long time ago.

Actually, I should say that my plan had been made the subject of a rather extensive study by the Food Research Institute of Stanford University.

Senator MALONE. You were at Stanford?

Mr. GRAHAM. I was there only for consultation. I am not a Stanford man.

Senator MALONE. What year was that?

Mr. GRAHAM. That, I imagine, would be about 1949. Let me give you a word or two about that.

Stanford University had always been opposed, the Food Research Institute had always been opposed, in principle to international commodity agreements.

Senator MALONE. You are not in favor of them?

Mr. GRAHAM. I am not in favor of them either. That is how this connection was established.

Joseph Davis particularly, who had been head of the American Economic Association, was a strong critic of that. He later became the economic consultant to the Randall Commission.

Senator MALONE. They have dropped their Randall report now, I guess, except for asking extension of authority to retain congressional responsibility to regulate foreign trade.

Mr. KNORR. For 1 year.

Mr. GRAHAM. I am trying to identify for you Joseph Davis, his type of thinking, which has been strongly opposed to international commodity agreements. He had shown rather considerable interest in my idea, in a general way, because it proposed to replace price fixing of individual commodities by a broader approach.

Senator MALONE. You are not in favor of price fixing?

Mr. GRAHAM. I propose to replace it by what I consider a better idea.

Senator MALONE. Was he in favor of price fixing for individual——

Mr. GRAHAM. No; he is not. That is why he has a degree of sympathy for my view.

Senator MALONE. The Food Research Institute of Stanford University has made some study of commodity agreements?

Mr. GRAHAM. They have made a number of such studies. I believe nearly all of them were critical on balance of the idea.

Senator MALONE. You say those agreements bear strong resemblance to cartels.

Mr. GRAHAM. That is correct, sir. That has been their view and it has been my view.

Just to finish my thought, it was because of the sympathy that Mr. Davis and Mr. Bennett, I believe, had to my approach which did not involve price fixing that they undertook to make this elaborate study of my proposal.

I should say for the record that a substantial part, if not all, of the cost of that was furnished by myself as a contribution to Stanford University.

Senator MALONE. When you review your testimony will you give us the full names and titles of these men you are mentioning?

(The data mentioned was subsequently furnished and is placed in the record at this point by direction of the chairman.)

Joseph S. Davis: He is emeritus professor of economic research at Stanford University. He is also economic consultant to the Randall Commission.

Prof. Merrill K. Bennett: He is executive director of the Food Research Institute of Stanford University.

Mr. GRAHAM. Yes. There is a book that is referred to, I believe, in the report, which was published by Food Research Institute, a critique, a study of my proposal. It was in connection with that that I met Dr. Knorr, I believe only once.

If I am not mistaken, Dr. Knorr did not take an active part in this study.

Mr. KNORR. That is right. I had left at that time.

Mr. GRAHAM. He was engaged in other work at that time. But I did meet with him. That was the only other connection I had with any of the members of the committee.

Senator MALONE. You did not really consult with him at all, then?

Mr. GRAHAM. I did not consult with them. They consulted with me because later on when attention was being given to Dr. Goudriaan's proposal, which is the subject of a large chapter in their report, they felt they would like to get my views on the same subject, since I had some reputation in that field. They asked me merely to appear, and I did for one session with them at which I talked the thing over.

Mr. KNORR. Mr. Chairman, I can bear that out. I think Mr. Graham has absolutely no responsibility for this report whatsoever. It was only when the chairman of this committee got interested in this commodity basket scheme that it naturally occurred to us we would like to consult Mr. Graham on his own views on the subject before we wrote our report that he came into the picture.

He has no responsibility for the report whatsoever.

What you see in the preface is a courtesy on our part in acknowledging that we consulted him and a number of other people.

Senator MALONE. Then this committee has been created by the resolution, the Argentine resolution, as modified.

Do you believe that that approaches—they call it stabilization of prices, or a sort of cartel arrangement?

Mr. GRAHAM. No, sir; I have never thought of these resolutions in that sense at all. These resolutions are very similiar, to my mind, to the one under which your subcommittee is functioning.

It proposes a study of the question.

Senator MALONE. The trouble appears to be that those studies always result in costing us money.

Mr. GRAHAM. Well, I do not know whether in this particular field——

Senator MALONE. It is another step toward our stabilizing somebody else's currency and giving them money to buy commodities.

Mr. GRAHAM. I think, Senator, there has been more criticism of the lack of action in these studies than there has been of action, whether good or bad.

Senator MALONE. Where do you think all this movement comes from? You are familiar with the International Trade Organization proposal, are you not?

Mr. GRAHAM. Yes, indeed.

Senator MALONE. Do you believe in that.

Mr. GRAHAM. I did not study that in great detail.

Senator MALONE. They wrote a book of several hundred pages, but one sentence is enough, and that is if Congress had approved it there would be a number of United Nations' members, whether it is 50, 55, or 60, that would meet at least once a year and probably many times and would estimate the production of the world and the consumption of the world and divide it on the basis of entitlement for consumption, something that no one understands.

In other words, they would be in entire control of the world production and consumption and divide it among the nations not in proportion to the energy they put in, where Americans probably put in more than the rest of the world combined because they work 18 hours a day, most of them, but they would divide it on an entirely different basis.

That is what the International Trade Organization proposed to do, roughly.

Then when we decided here not to take that, or, at least, we did not take it, the International Materiels Conference came along, financed surreptitiously because the Appropriations Committee almost ordered them not to take the money from the only obvious source, so they found it in another source and financed it. That, of course, is covered in part 4 of our hearings.

You can take it and study it.

I would like to have your comments if you would like to make any comments to the committee.

Now, we come up through the cellar door with this resolution which would not have been necessary if we had accepted either one of the others.

What we are trying to do is to see where all this push is coming from. It is like a coach in the spring when he divides up his players.

When the line is giving away all the time, he has to find the person who is giving the energy on the other side. He has to take him out and put him on the opposite side.

Mr. GRAHAM. I think the force behind both the first resolution which resulted in the creation of a committee of experts and the later resolution which is creating the permanent commission, is a very simple one, namely, a very strong feeling throughout the world, including many parts of America, that the instability of raw material prices is a bad thing and that it is desirable and even necessary to do something about it.

You may recall in the report of the Capehart committee, which went to Latin America, point 8 of that report suggested that more serious consideration be given by the United States to the problem of instability of raw material prices.

In my opinion, for what it is worth, these actions recently reflect a very natural desire on the part of countries that have suffered a great deal from instability to remedy the situation if it is at all possible.

Senator MALONE. Then you think it is mostly coming from outside the United States, this pressure to do that?

Mr. GRAHAM. I am convinced of that, sir.

Senator MALONE. Now, do you know about the Interim Coordinating Committee for International Commodity arrangements?

Mr. GRAHAM. I know that one.

Senator MALONE. No human being can remember the names of all these committees, and then they start using the initials. That has been operating continuously since 1947 without congressional sanction.

There is no way of killing them apparently. Congressional refusal is nothing.

In its recent report the President's Materials Policy Commission appointed under a previous President, said in volume 1, page 87:

> The United States has not ratified the treaty, but under a resolution in the United Nations Economic and Social Council, it is bound with other nations to recognize chapter 6 as a general guide.

Do you agree with that?

Mr. GRAHAM. Sir, as I interpret that thing it relates only to this point, that if international commodity agreements are entered into and the United States is to be a party to an international commodity agreement, then those agreements, such agreements, should be subject to the discipline imposed on them, and I think they are desirable disciplines.

Senator MALONE. It says here even though the United States has not ratified that treaty, we are still bound.

Mr. GRAHAM. I am referring not to our carrying out of the Havana Treaty. I am referring only to the method under which international commodity agreements in the future may be organized and operated.

I am giving you, since you asked me the question, for what it is worth, my interpretation of that situation. We are not bound to do anything except through voluntary acceptance of an international commodity agreement such as the wheat agreement, which we did accept.

Senator MALONE. And which will not work and England has refused to accept.

Mr. GRAHAM. That is correct, and if we had refused to accept it, there would be no relevance in this sentence you speak of.

Senator MALONE. Let us get down to bedrock now. Any of these agreements without the United States acquiescence and active participation moneywise have no effectiveness unless a combination of other nations control the materials we must have and hold the price above what it would otherwise be. Is that not true?

Mr. GRAHAM. I think the second part of your statement is true with regard to what it relates to, namely, that conceivably producers of the raw material we must have could combine and hold the price up. That has been done.

Senator MALONE. That is what they are doing under this resolution. We are not a party to it.

Mr. GRAHAM. I read it exactly the opposite.

Senator MALONE. How do you read it?

Mr. GRAHAM. I tell you why that is, because the provisions of chapter 6 of the Havana Charter are intended to prevent exactly that arrangement, because they say no international commodity agreement shall be entered into except with full representation by consuming nations.

Senator MALONE. That is true, but they do not say it cannot be made effective without one of them.

Supposing Argentina stayed out and we signed it. It is still effective, is it not, because we are the ones able to finance it. We are the ones able to enforce it.

Suppose Uruguay would stay out, who would miss them?

When we stay out there is no one to put up the money, so the only effectiveness it would have would be a combination of nations to control all the tin, raise the price of tin conceivably, with our agreeing that whatever there is in our stockpile or what we own not in the stockpile, would not be turned loose on the market at such a terrible price.

Could they not fix it where they want it?

Mr. GRAHAM. My understanding of that particular sentence which you previously read was that the producing nations of tin could not enter into an international commodity agreement without our acquiescene which, as you have pointed out, they received.

Senator MALONE. But they have already done that.

Mr. GRAHAM. But recall that we have indicated to them no objection to their entering into this tin agreement.

Had we indicated objection, it might well have been that the agreement could not be effective under the terms of the very engagement you are complaining about.

Senator MALONE. Your explanation this morning was wasted with Mr. Waugh, because he said he did not sign an agreement, but he did not object to it and enter an official objection.

Mr. GRAHAM. The effect was to permit the agreement to operate.

Senator MALONE. If we did not have antitrust laws organizations that control the entire output of a certain commodity could enter into an agreement so that the customers would have to pay a fixed price if they were to get the material, could they not?

Mr. GRAHAM. That is right.

Senator MALONE. Then what international antitrust law do we have that would prevent the only nations that produce the tin or any

other commodity from entering into an agreement and fixing the price?

Mr. GRAHAM. I am compelled to tell you, Senator, that we have one which is that very chapter 6 of the Havana Charter which you object to. That is applicable not only to us, but to all the other nations.

Senator MALONE. How do you enforce it?

Mr. GRAHAM. That is an entirely separate question, sir.

Senator MALONE. Can it be enforced?

Mr. GRAHAM. The same question would arise as to whether anything could be enforced against the United States if the United States did not wish to go along. That is a political question, sir. It is not a question of interpretation.

Senator MALONE. The point is that if there is no international enforcement, and that would only mean war, like the policeman on the corner would hit you on the head with a night stick if you did not come along peacefully, and if we do not have anything of that kind, as long as we do not have it, what keeps them from fixing a price?

And we have agreed ahead of time not to interfere with that fixing of price by turning loose any of the tin that we have, whether we need it or not.

Mr. GRAHAM. You know, I am not a supporter of this tin agreement. I am not in favor of that approach.

Senator MALONE. I did not go into all this trouble to get you down here to stand on a technicality.

Mr. GRAHAM. My point is that it may not be the thing I know most about.

Senator MALONE. I would ask my grandson if I had him here, and he was 4 years old 2 weeks ago, because anyone with commonsense, it seems to me, could see that.

But if you have a reason why you do believe they would live up to it, I would like to know what it is.

Mr. GRAHAM. There is a reason why they will not violate the agreement or are not likely to do it. I do not think they are likely to do it because, as I believe Mr. Waugh intimated this morning, the nations are a little too dependent on us overall in the world picture to flaunt our wishes absolutely in a matter of this kind, particularly when it would mean a definite flouting of an undertaking that was entered into previously by this very Nation.

Senator MALONE. What happened when we furnished the money to England? I will tell you what happened. We built up a stockpile of zinc and lead and just about a little over a year ago now they took that stockpile we had financed and broke our market with it.

Now they did not seem to be too much dependent on our good will, or be figuring that they would be likely to lose it by doing that, and they have not lost it because our Secretary of State has practically lived over there since.

Mr. GRAHAM. If this is a question to me, I will say the relevant answer would be that had England made a definite understanding not to sell zinc and lead at the time this thing was financed and they had broken that understanding, in my opinion it would have been an extremely serious matter.

Senator MALONE. I will tell you this, that we financed it for their stockpile and when we build a stockpile we ordinarily respect it as far as the other nations are concerned.

So their is no confidence between nations as far as stockpiles are concerned. That broke all confidence that anyone could have that could take a good square look at it.

Mr. GRAHAM. Apparently that indicates that whatever arrangements are made should be very explicit.

Senator MALONE. Then what would you do if they broke it?

Mr. GRAHAM. I guess I would have to consult the Department of State.

Senator MALONE. That would be wonderful. That would be the last word, I should say.

Mr. GRAHAM. It is obvious I could not answer any differently.

Senator MALONE. Now, in acting as consultant, or whatever your connection was with this committee—I did not intend to bring up the subject to make it clear that you had nothing to do with it whatever—but you were consulted?

Mr. GRAHAM. That is correct.

Senator MALONE. Then were you acting for the United Nations or the United States State Department, or just as a private citizen?

Mr. GRAHAM. Merely as a private citizen.

Senator MALONE. You have no cloak of authority?

Mr. GRAHAM. None whatever. I had no official position. I was not compensated incidentally. I merely gave my views as a public service.

Senator MALONE. You did make the proposal which appears there in Commodity Trade and Economic Developments, a concept of a commodity unit as the basis for stabilization?

Mr. GRAHAM. Bear in mind that is not a new proposal made to them; they consulted me about a proposal I made many years ago. That is true.

Senator MALONE. I think we covered the World Commodities and World Currency.

There is still a missing link to me, and I hope you in rearranging or completing your testimony, will make it as clear as you can as to just who puts the value in this business if we have too much wheat or too much of any other commodity, who is going to take the rap.

Mr. GRAHAM. I shall be glad to do that.

(The information referred to in this colloquy was subsequently furnished and is placed in the record at this point.)

(1) Value is created (*a*) by the production and assembling of complete units of commodities which are acquired in exchange for international dollar credits, and (*b*) through the acceptance, by all participating countries, of these commodity-backed credits as sound international money.

(2) Under this plan, if there is too much wheat relative to other commodities, the price of wheat falls and the producers must either bring their output into line or suffer through low prices. However, if there is balanced expansion of all commodities, then either consumption will expand proportionately—as it should—or else the surplus will be impounded in the form of complete commodity units, financed by money issued against them.

I wonder if I might make a point that may not have been touched on before? It is quite important in connection with the general question. That is the effect of a plan of this kind on accessibility of raw materials to the United States in time of war.

Senator MALONE. What do you say about that?

Mr. GRAHAM. I would like to say I originally wrote about this in my book in 1944. I would like to read two sentences. This is World

Commodities and World Currency. It is the first full paragraph on page 49. The last two sentences read as follows:

> To the extent that possible war may still enter into the picture, the case for large stocks becomes stronger, especially from the standpoint of depositing nations such as the United States. We can hold our share of the corporation's commodity units within our own borders and view them as a war chest of enormous value.

Senator MALONE. Where would these commodities be stored?

Mr. GRAHAM. I would assume a very substantial part of them would be stored in the United States in the same way as a substantial part of the gold reserves of the International Monetary Fund.

Senator MALONE. You mean you would be storing in the United States the contributions of the other nations?

Mr. GRAHAM. Very possibly to the extent that we took over from them, we put up the money by exporting our goods to these countries and taking over——

Senator MALONE. You mean we would export our goods to those nations and they would export their goods to us?

Mr. GRAHAM. No; this would be a little indirect, as I see it. These nations would supply raw material commodity units for which they would have money credits in the first instance.

Senator MALONE. Where would they store these?

Mr. GRAHAM. Perhaps they would be stored in their own country in the first instance.

Senator MALONE. Who would police this storage? You do not think they are going to be there without somebody watching them?

You know, we lost our own material here that was supposed to be watched by the Department of Agriculture. It disappeared.

Mr. GRAHAM. We have $12 billion worth of various goods in storage in this country now.

Senator MALONE. We think we have, but we found one day that we did not have that much when we took the inventory. Do you remember that?

Mr. GRAHAM. That may be.

Senator MALONE. How would you police them in Belgium?

Mr. GRAHAM. The point to begin with, we do not pay for them, sir. Let us point out in the first instance Belgium has contributed units held in Belgium and represented by deposits which Belgium has.

Senator MALONE. They get this international money?

Mr. GRAHAM. That is right. That is step 1; step 2, Belgium buys our manufactured goods from us.

Senator MALONE. With that international money?

Mr. GRAHAM. Yes, and pays us, transfers that money to us. That is step 2. Now we are the owners of that money.

If we wish to transfer the commodities inside our boundaries, as we may wish to do so, we can do it, because we hold the claims against those commodities and we are entitled to hold the commodities.

Senator MALONE. We could move the Belgium commodities to the United States if we wanted to?

Mr. GRAHAM. Yes; once we had sold the goods to Belgium and taken over their money.

Senator MALONE. What would these goods consist of?

Mr. GRAHAM. They would consist solely of raw materials.

Senator MALONE. Wheat and corn?

Mr. GRAHAM. That is true.

Now, we may not want to transfer all of them. We may want to transfer only certain strategic materials.

Senator MALONE. Suppose we found suddenly that some of it disappeared and we held the currency for it?

Mr. GRAHAM. We would have a claim against the persons, against the Belgians.

Senator MALONE. We have had claims before.

Mr. GRAHAM. That is right.

Senator MALONE. That finishes that one.

Now, you say availability in time of war. What availability do you think of for tin stored in Malaya, for which we held the currency? How would we get it in time of war?

Mr. GRAHAM. It is obvious, sir, on tin we would not permit tin to be stored in Malaya against which we had a monetary claim. It would be very unwise.

Senator MALONE. Where would you store it?

Mr. GRAHAM. We would store it here.

Senator MALONE. What else do we have on this list?

Mr. GRAHAM. Copper, zinc, lead, rubber.

Senator MALONE. Where would you store rubber?

Mr. GRAHAM. We would store it here, too, to the extent we had a claim.

Senator MALONE. Why would you not store everything here?

Mr. GRAHAM. It would be just a matter of policy. We may not wish to store certain agricultural commodities.

Senator MALONE. Germany may put in a lot of pig iron. How would we get the pig iron from there if war started?

Mr. GRAHAM. It is pretty clear to me that as to pig iron it would be better for us to have a strategic stock here than it would be to have it in Germany.

Senator MALONE. And wood pulp the same way?

Mr. GRAHAM. Yes.

Senator MALONE. Where would you store the zinc and lead produced in Africa?

Mr. GRAHAM. We would store those here. The only reservation I had in the back of my mind is the question of whether certain agricultural products, such as corn and wheat, we might not wish to transfer even though we had claims against them, but I see no basic objection to doing it except as a matter of expense.

Senator MALONE. Let us go the other way around. They take some of this money. What is going to be issued on the money they take? They have to produce it themselves?

Mr. GRAHAM. They can get credits only in the first instance against the commodities which they produce. They might later sell other goods.

Senator MALONE. Finally you have to transfer that money in exchange in the only money that counts in the world, and that is dollars.

Mr. GRAHAM. The most important money; yes.

Senator MALONE. And we take the rap on the exchange, whatever that is.

Mr. GRAHAM. If you consider it a rap, that would be true.

Senator MALONE. It would be if it deteriorated in value, would it not?

Mr. GRAHAM. If the money deteriorated in value——

Senator MALONE. Would you call this money?

Mr. GRAHAM. These would be deposit dollars of the International Monetary Fund.

Senator MALONE. What would you call that? You would not pronounce that every time you said it?

Mr. GRAHAM. I think we would call it international dollars.

Senator MALONE. Why do you not call it something that you would know what it is? Have you created something?

Mr. GRAHAM. You mean warehouse receipts for commodities?

Senator MALONE. Call them greenbacks.

Mr. GRAHAM. Just what they are not. They are not greenbacks. They are yellowbacks actually.

Senator MALONE. Now when we get yellowbacks and we have a lot of yellowbacks, we have a couple of billion dollars of yellowbacks, and they deteriorate in value in terms of the dollar, are you tying the dollar up to this business, too?

Mr. GRAHAM. Well, you know the dollar's value at the moment is defined in terms of gold.

Senator MALONE. You are getting away from that.

Mr. GRAHAM. No, not at all, sir. I have no intention of changing the gold situation in any form.

Senator MALONE. You do not really have gold behind it.

Mr. GRAHAM. That is a separate point of argument which is not related.

Senator MALONE. You can get a silver dollar for a silver certificate, but not a gold dollar.

Mr. GRAHAM. I would have no difficulty in getting gold for my American deposits if I wished to get it.

Senator MALONE. Where would you get it?

Mr. GRAHAM. I would get it in London and Canada.

Senator MALONE. Then you do not think much of our system.

Mr. GRAHAM. We are not allowed to hold it in this country.

Senator MALONE. On page 36 of the same report is a reference to a more recent proposal which you suggested of a "combined monetary base consisting of 40 percent gold and 60 percent commodity reserves." What do you mean by that?

Mr. GRAHAM. That is a combination mainly for convenience. I envisaged this situation. There is now about $40 billion of monetary gold in the world, of which we have approximately half.

Senator MALONE. They have been buying some of it back with the dollars we give them, have they not?

Mr. GRAHAM. That may be true. But we have approximately half. I was thinking of the monetary system of the world which had in existence this $40 billion of gold. We could use that gold in a combination similar to something you must remember when the Federal Reserve notes were originally issued, they were backed by 40 percent in gold and 60 percent in commercial paper, some of which was warehouse receipts against commodities.

Senator MALONE. I do not remember that we ever had anything in the gold standard that prevented you from getting the full amount of gold for your gold certificates. Do you?

Mr. GRAHAM. You mean until 1933?

Senator MALONE. That is correct.

Mr. GRAHAM. That is correct.

Senator MALONE. Until like Chiang Kai-shek they took in the gold and gave them paper.

Mr. GRAHAM. I would like to see that reversed to the extent possible.

Senator MALONE. Back on the gold standard?

Mr. GRAHAM. I would like to see it reversed. I do not believe, in my own opinion, that it could be done so well without buttressing gold with additional physical commodities behind the monetary system.

Senator MALONE. I go with my $10 certificate. According to your suggestion here, I get $4 in gold and $6 in wheat. Where do I put the wheat?

Mr. GRAHAM. Of course you would not do that, actually.

Senator MALONE. I would get a certificate showing I had $6 worth of wheat stored in Kansas or Belgium.

Mr. GRAHAM. I do not think that is a proper description of the actual operation here.

Bear in mind we are not talking about currency, actual paper currency, which is held in the pockets of the people. We are talking about the assets of our central bank against which we have our large deposit system.

Senator MALONE. Suppose they had a bad fire and burned up about 60 percent?

Mr. GRAHAM. I think we would be able to avoid that by proper distribution.

Senator MALONE. Insurance?

Mr. GRAHAM. Insurance, self-insurance, by a wide distribution.

We have learned a great deal on the storage question.

Senator MALONE. Suppose an atomic bomb came along in a certain area and destroyed 25 percent of the security?

Mr. GRAHAM. Suppose it fell on Fort Knox. I think it is the same problem.

Senator MALONE. It is buried. I do not think it would hurt it.

This seems silly to me, to tell you the truth. I hope you can explain it so that I can understand it.

Mr. GRAHAM. I would like to say, and I am sure I can, in favor of this thing that this plan has had the endorsement of some very reputable economists.

Senator MALONE. Who are they?

Mr. GRAHAM. In this country Frank Graham, of Princeton, Albert Hart, of Columbia; in England, Colin Clark.

Senator MALONE. I think Lord Keynes would be tickled to death over it, but he is dead.

Mr. GRAHAM. He and I have had quite a bit of controversy over it.

There is Tinbergen in Holland.

Senator MALONE. Do you have any well-known, reputable economists in America that go along with it?

Mr. GRAHAM. I believe that Prof. Albert Hart, of Columbia, is a well-known, reputable economist.

Prof. Julius Hirsch, who has worked actively with me in this matter.

I may as well speak about him for a moment, because I understand an effort was made to have him up here.

Senator MALONE. He wrote some books, too.

Mr. GRAHAM. Yes, he has written books.

Dr. Hirsch was a man of note in Germany before Hitler. He was their Minister of Commerce.

It seems he had ideas similar to mine. When he came on to my books he became very enthusiastic about it and was giving a lot of time and thought and work to pushing this idea.

Senator MALONE. Unfortunately, as to this proposal in collaboration with Dr. Julius Hirsch, as you know, Dr. Hirsch has been abroad and we were unable to have him here. However, since he participated in the report, we would like to insert into the record his biography. Will you please make an effort, if any man's name is brought into the discussions as an economist and expert, to give as much background as you can when you send down the corrected testimony?

I will just read from Dr. Hirsch's biography at random:

Professor, graduate faculty, New School for Social Research, New York City, since 1941; economic consultant to banking industrial and public concerns since 1943; Modern Commerce (German and Russian edition), 1925–29; American Economic Miracle (in German, Russian, and Hebrew) 1926. I will submit this for the record as the biography of Dr. Hirsch:

WHO'S WHO IN AMERICA

(Vol. 27, 1952–53)

HIRSCH, JULIUS, economist; b. Mandel, Rhineland; s. Salomon and Mathilde Hirsch; Ph.D., U. of Bonn, 1910; m. Edith Jarislowsky, Apr. 8, 1927; 1 son, Ernest Rudolph. Graduate faculty, bus. administration, Cologne, Germany, 1911–15; with German Price Administration, 1916–23, dep. administrator 1917–18, administrator 1918–23; also 1st undersecretary of Germany, then secretary for industry and trade, member reparations commission and confs. Cannes, Genoa and Paris, 1919–23; prof. econ., and bus. econ., U. of Berlin and Grad. Sch. Bus. Administrn, Berlin, 1924–33, also mng dir. Bus. Research Inst. of the Grad. Faculty; prof. Grad. Sch. Business Administrn., Copenhagen, Denmark, 1933–40; prof. grad. faculty, New School for Social Research, N. Y. City, since 1941; economic consultant to banking, indsl. and public concerns since 1943. Mem. Reich's Economic Council inquiry com., 1926–32, expert to League of Nations and Internat. Labor Office; Geneva Conf., 1927; chief consultant, O. P. A., 1942–43. Pres. tech. com. distbn. Internat. Chamber of Commerce, 1931–33. Contributor to and participant in Productivity Conf. of U. S. Dept. of Labor since 1946. Member American Econ. Assn., Am. Marketing Assn. Collaborator with Edith Hirsch on regular reports on World Food Situation since 1946, extracts from the reports being published regularly in N. Y. Times since 1948. Author; Modern Commerce (German and Russian editions), 1925–29; The American Economic Miracle, in German, Russian, Hebrew), 1926; Standard Figures for Business Research, 1934; Standard Figures for Industry, An International Comparison, 1940; Distribution Costs, An International Digest (with Malcolm P. McNair, Stanley F. Teele), 1941; Price Control in the War Economy, 1943; The Inflation Bugaboo (with George E. Shea, Jr.) 1944. Contr. articles to Collier's Barron's Weekly and other periodicals. Home: 545 West End Av. Offices: 52 Wall St., New York 5, N. Y.

I note in this biography that Dr. Hirsch has been a professor in the New School for Social Research in New York City. I mention that because it is well known that this school has fostered socialistic theories as opposed to the capitalist economic system. The capitalist economic system is the economic system believed in by 99.9 percent of the people of this country, and I do think they do not approve of socialistic economic policies which are implicit in the recommendations of the United Nations' study such as state domination of the markets and state buying and selling, and international control of commodities and moneys.

Mr. Graham, I notice that Dr. Alvin Johnson, director of the New School for Social Research wrote the foreword to your book on Storage and Stability. I wonder whether you conferred with Mr. Wallace when he advanced the "Ever-Normal Granary"? I am serious in asking this question of you, because Wallace made quite a splash in affecting the policies of this Nation and faded out rather unceremoniously, but he may be back. You never can tell where these people come from.

Mr. GRAHAM. I met Secretary Wallace only once in my life up at Wellesley College.

Senator MALONE. You do not think he originated that phrase "ever-normal granary"?

Mr. GRAHAM. It is originally a phrase from ancient Chinese history or economics, but he appropriated it and made it well known.

I want to add something, since you have been reading this material to me, with regard to Dr. Hirsch.

I want to say very strongly that in the last few years, at least, the New School has not been identified with a socialistic point of view.

To begin with, it has been very strongly anti-Communist, and in addition, it has been very skeptical about the merits of socialism as a whole, and I know that from my own contacts with it.

Senator MALONE. My own personal opinion of all these tricky approaches is that about the only difference there between the final objectives of a Communist and a Socialist and a Fascist is their method of approach. They all reach finally government ownership. The Communist will shoot you to bring his ideas into play and a Socialist will spend you into it, and I have often referred to a Communist as a kind of impatient Socialist. These people up there have had some very funny ideas at different times. I do not blame them at all—they are entitled to their opinions, but it does not fit what a lot of us are trying to do down here. I would like to get the connection.

Mr. GRAHAM. I should say this: I know something about Dr. Hirsch's work in the New School. Dr. Hirsch is a businessman and a consultant to large business firms, and the courses he gives all deal entirely with business operations under the American system, and it is hard to imagine anything more removed from the socialistic point of view than the work which he has been doing at the New School.

Senator MALONE. I do not want to dwell on Dr. Hirsch because he is not here. Some time when he returns we will look forward to having a personal visit with him. I want it definitely understood that there is nothing of a derogatory nature to Dr. Hirsch while absent, or even if he is here. He is entitled to his opinion. I do want to get his opinion in the record.

We have had Mr. Evans of the State Department here. So this is not new. He was associated with the New School for Social Research. It appears that this school has had quite an influence on the formulation of our economic policy, which we do not think would be approved by most of the people in the country, which at least was not approved by the Congress, and they are about the closest people to the country that I know of.

I want to call attention to the fact that Dr. Hirsch's works are published in the Russian language since the Communists assumed power. That ought to be an honor, but at the same time they have no record of publishing things they do not believe in.

Mr. GRAHAM. I believe that Dr. Hirsch, from my knowledge was bitterly attacked by the Russians.

Senator MALONE. But they did publish his books.

Mr. GRAHAM. He was bitterly attacked after these books were published. Those books related entirely to the business methods, they deal with operating ratios of business concerns.

Senator MALONE. Do not his works deal with Government controls over the economy, to a certain extent, principally?

Mr. GRAHAM. That may be so. I should have added in my previous statement that the books of Dr. Hirsch that I am familiar with deal with business data.

Senator MALONE. There is a publication, National and International Monopolies from the Point of View of Labour, the Consuming Public, and Rationalisation.

Mr. GRAHAM. My impression is, and I wish you would confirm it——

Senator MALONE. Published by the League of Nations in 1926.

Mr. GRAHAM. My impression is that he strongly attacked the concept of cartels.

Senator MALONE. Twenty-eight years ago Dr. Hirsch also proposed that the League of Nations establish a general observation post to examine and review international agreements.

We find that in 1943 he wrote a book entitled "Price Control in the War Economy."

This book may best be described by quoting the title of the first chapter, "From Babylon to Leon Henderson."

He does not say "Back to Babylon." That is a very interesting title.

Mr. GRAHAM. I do not know the book. I know that Dr. Hirsch participated in price controls during World War II.

Senator MALONE. There has still been no statue built to Leon Henderson in the Capital. He filled his place in this scramble of printing new American dollars and scattering them all over the earth and destroying the value of money.

Mr. GRAHAM. I think he was interested in preventing inflation by keeping prices down.

Senator MALONE. By fixing prices, by closing the petcock and just refusing to see that what he was doing had to result in inflation and prices had to rise. I do not intend to assert my philosophy here, because the committee will study the record. It has been my observation, confirmed by a certain amount of experience that when you fix a price and cut out a portion of the profit and make it unprofitable, or threaten to make it unprofitable, to produce something it becomes scarcer and scarcer and finally you run out of the very thing you are trying to control the price on and it explodes, and Leon Henderson was one of the leaders in this price control.

Dr. Graham, I want to thank you for coming down here, and we will forward your testimony to you at the earliest possible time.

Mr. GRAHAM. Thank you, Senator. I will try my best to give you the additional material that you have asked for. I have made notes of it.

Senator MALONE. Will you do that, if you will, and when I question you, if I appear to press a point it is not because I have any idea that you are not entitled to your opinion. We brought you down here to see what your opinions are and why you were employed, and what you

contributed, because it could be that Congress is wrong or that out in the mines, ranges and forests, we just have not learned enough to understand that all of this is easy if we could just find how to control people.

Out in our country we still believe we have to raise it or dig it out of the ground or cut timber, in order to make a dime, and that is the only way to create wealth.

Mr. GRAHAM. I am in agreement 100 percent on that.

Senator MALONE. We do not go along very much out there with people who take it off the top through organizations and, speaking for the chairman—and I am sure for the entire committee—we are searching for information, we are searching for the source of the pressure behind all of these groups. These groups come in first through the doors. You close the doors, and they come in the windows. Then you close the windows and they come in through the cellar.

We have GATT. We had the International Trade Organization. We had the International Materials Conference, and now this new organization that the United Nations creates, and all for the same purpose—to control somebody.

Yet we have never found anybody picking up a check for one dollar to make it work.

Mr. GRAHAM. I hope that in the future if we pick up any checks, we will get value received.

Senator MALONE. Quid pro quo. I will go with you on that closing note.

STATEMENT OF DR. KLAUS KNORR, ASSOCIATE PROFESSOR OF PUBLIC AND INTERNATIONAL AFFAIRS, WOODROW WILSON SCHOOL OF PUBLIC AFFAIRS, PRINCETON UNIVERSITY

Senator MALONE. Dr. Knorr, you have listened to all of the testimony today, have heard the chairman state 2 or 3 times what we are trying to determine here. I will mention again Senate Resolution 143 under which we are directed to determine the availability of critical materials to us in time of war for our expanding economy and security. That injected a new note. We had to determine through military strategists what area we could defend in case of an all-out war suddenly, which, of course, does not particularly interest you, except that the committee had to do that.

They have determined, for your information, what I think will add up to the fact that the Western Hemisphere would be our only dependable supply in case of an all-out war until we had begun to win the war and again establish our control over other areas. Therefore, it would be very problematical to secure these critical materials from any source other than the Western Hemisphere, to win a war.

Mr. KNORR. I am very much interested in that, as a matter of fact, because the study I have been working on for several years is the war potential of countries, and that, of course, has led me to inquire into just which are the resources that a country requires in wartime. So I am very much interested in that matter.

Senator MALONE. We have a list of 77 materials that range all the way from petroleum to uranium. There is titanium, which is made from a couple of different raw materials, like rutile, and ilmenite. The list includes lead and zinc and the more common minerals.

We have for some reason not produced enough for our own use, and it has been necessary to import them, or if not necessary, it has at least been made necessary.

Some of us believe that the policies we have pursued may have brought a lot of it about.

No one is worrying about availability of materials if there is a guaranty of perpetual peace. What we worry about is that for the last 35 years we were always either in war or on the verge of one, or preparing for one, or afraid of one, and we have had three, and are threatened with another.

So, it finally comes down to the point of under what policies that are susceptible of influence by this Nation are the critical materials more available to us at a fair price, and readily available to us in peacetime and in wartime?

What policy could the Congress adopt that would bring us to maximum production of these materials, and, in the area we can defend, which is the Western Hemisphere? What policies would increase the going concern production annually? The stockpile plus the going concern annual production within the area which we can defend during wartime, and where it is available to us, must be maintained to win a war.

So we then get into questions that, taken by themselves would look a little far afield, but they all add up finally to the one answer.

So, would you identify yourself for the record and give us your background, and I hope that you will not be modest about it. We know that you have had a lot of experience in different fields. Give us your background for the record and tell us in a general way your connection with the matter that you have heard under investigation today.

I want you to fully realize that we respect your opinions. We may or may not agree with them. That is the American system, but we hope to complete our information and to be able to identify the organizations that are trying to assist in solving national and international problems.

Many of us believe that there have been influences—mostly unknown to the down-to-earth people that are trying to do something about it—but are there nevertheless. In order to identify them we have to get the complete story from the people who have actually worked at it, and learn their conclusions.

So, would you just identify yourself and proceed with your statement?

Mr. KNORR. I think that my name you already have. It is Klaus Knorr. It will interest you, I am sure, Senator, that I was born in Germany and I came to this country in 1937.

Senator MALONE. Some of the finest scientists in the world came from Germany and I am sorry we did not get all of them.

Mr. KNORR. Some had to go farther east, I guess.

Senator MALONE. Russia got a lot of them.

Mr. KNORR. Shortly after I came to this country I decided that I would like to go into the teaching field so I enrolled as a graduate student at the University of Chicago and did graduate work for a number of years.

Incidentally, in 1940 I became a citizen. I always remember that because it happened on December 31 of that year.

Senator MALONE. What year was that?

Mr. KNORR. 1940. In 1941 I got a Ph. D. from the University of Chicago, and then my first job was out on the west coast at Stanford University, where I was connected with its Food Research Institute.

Senator MALONE. It seems that a lot of you people end up at Stanford. My daughter attended Stanford University. It is only 200 miles from where we live.

Mr. KNORR. It is a nice place. It was at that time, during those 4 or 5 years that I got involved with commodity problems, raw materials problems. I am not really a raw materials man, but again and again people come and say, "Why don't you work on this or that problem?" I suppose I am recognized to know a little bit about some of the aspects of raw materials. I am not even particularly interested in these problems. I wrote a couple of books on the prewar international rubber agreement and the international tin agreement. I think you have copies of them there.

I left Stanford in 1945 and went to Yale University, and taught and did research there, mostly outside of the commodities field, the raw materials field.

I taught a general course in international trade, both on the college level and on the graduate level.

I worked in general on problems of international economic relations, and, with the exception of 1 year when I was a visiting professor at the University of Geneva in Switzerland—I think it was 1949 and 1950—I stayed at Yale until 1951, I think it is, and then came to Princeton, where I have been ever since.

Senator MALONE. What is your status there?

Mr. KNORR. I am a professor.

Senator MALONE. In what field?

Mr. KNORR. I am presently in the Woodrow Wilson School of Public and International Affairs.

Senator MALONE. What does that include in the field of your work?

Mr. KNORR. Well, my general field is international economic problems. Now, I am not equally familiar with all of them. There are many of these problems that I am not familiar with at all, but I have been working within that field, sometimes on commodity problems and sometimes on other problems, both as a teacher and also as a research person, and to the extent that I have been consulted by Government or by the United Nations, it was also generally within that area.

Senator MALONE. Through what agency or department were you retained by the United Nations?

Mr. KNORR. Well, I am not quite sure that legally I was an employee of the United Nations. I do not think I had a boss there, and nobody could tell me what I should do. I was quite independent.

I think this is in the nature of the committees that are independent committees of experts, and we were a law unto ourselves, that is, we were not influenced by anyone or told by anyone what to do.

Senator MALONE. By whom were you employed?

Mr. KNORR. By the United Nations, by the Secretary General. He appointed us.

Senator MALONE. And you were in the pay of the United Nations?

Mr. KNORR. Yes; that is right. We were paid by them.

Senator MALONE. Was there any suggestion by any of our executive departments here in Washington that you be employed there?

Mr. KNORR. I think so, yes. I think that is definitely the case, and also I was cleared for the purpose. I went through another clearing. I have gone through many of them because I have been often a consultant with Government departments, and with the National War College.

Senator MALONE. You never objected to being subjected to clearance?

Mr. KNORR. No. I understand the purpose of it, and I am not afraid of it.

Senator MALONE. They subject all of us to that. You never objected to any questions because of loyalty or anything?

Mr. KNORR. No; I never have.

Senator MALONE. Go right ahead, if you want to give us any general information.

Mr. KNORR. Now, about this particular job, I think I was called to the phone by Mr. George Picot, who was the Assistant Secretary of the United Nations, or was, at that time. I do not know whether he still is—he is a Frenchman.

Senator MALONE. It was at the suggestion of our State Department, you believe?

Mr. KNORR. I think they suggested my name. The United Nations would not have appointed anyone from the United States unless the State Department had O. K.'d it. I think it was not legally necessary, but it is a good rule, although, of course, as an expert, I was employed as an economist, as you might be employed as a mining engineer, to give a technical opinion on some mining problem. I could not obligate anyone whatsoever—not the United States, or anyone else.

Senator MALONE. On what were you asked particularly to pass your opinion?

Mr. KNORR. That, of course, is stated by the Assembly's resolution.

Senator MALONE. Read part of it into the record to give us an idea.

Mr. KNORR. I think that would be, in fact, a very good idea, because this would explain what we achieved by writing the report, for we did not do what the Assembly wanted us to do there.

Senator MALONE. You mean that your conclusions did not coincide with what they had in mind?

Mr. KNORR. Did not coincide with the majority in the General Assembly, that wanted this report written. I think that is true. You have already read this once briefly, but I will read just the main passage here:

> The General Assembly * * * recommends to member States that:
> (a) Whenever governments adopt measures affecting the prices of primary commodities entering international trade, they should duly consider the effect of such measures on the terms of trade of countries in the process of development, in order to insure that the prices of primary commodities are kept in an adequate, just and equitable relation to the prices of capital goods, and other manufactured articles, so as to permit the more satisfactory formation of domestic savings in the countries in the process of development, and to facilitate the establishment of fair wage levels for the working populations of these countries. * * *

Now, the key words are "adequate, just and equitable relation," which occurs in several other passages of the Assembly resolution.

In other words, it was quite clear to me that what they wanted the committee of experts to do is to tell them how to set up an inter-

national parity scheme of the kind that we have in the United States for domestic farm products.

I think this was quite clearly the intention of the Assembly, and, in fact, one of the reasons, and I think probably the main reason, that moved me to agree to be a member of this committee was that I thought it would be a good idea to talk them out of it, if I could, because I do not believe in such a system. I do not believe in it particularly for the United States, and certainly not as an international scheme.

Senator MALONE. You do not believe in it for what particular reason, if we could enlarge on it? Because it was impossible or because it is just impractical?

Mr. KNORR. Well, in this international field——

Senator MALONE. In the international field?

Mr. KNORR. I think it is totally impractical. I think quite clearly most industrial nations would not have anything to do with it and most nations would be right in coming to that sort of conclusion, because what you would be doing then would be transferring income from the wealthier countries to the poorer countries. Maybe for certain purposes, this should be done, but let us then do it openly and aboveboard. Let us not do it by monkeying around with markets.

Senator MALONE. I think you have justified your appearance here by that one statement. I have been saying that now for a long time.

If we are going to fight to hold Indochina as a colony of France, or send our Army out to fight to prevent unemployment, or for any reason, let us say so, but do not say it is because you have to go there to get tin.

Mr. KNORR. That is right.

Senator MALONE. Because that is not so. Face the situation.

You have made a good start. Just go ahead.

Mr. KNORR. This Assembly resolution, as you know, was rammed down the throats of the economically advanced countries, including the United States, the United Kingdom, and Belgium and all of them, by the economically undeveloped countries, because there are more of them than there are of the undustrialized and advanced countries.

Senator MALONE. And, we will say Bulgaria would have the same vote, if they were a member of the United Nations, as the United States?

Mr. KNORR. That is right, in the General Assembly. Quite so.

Senator MALONE. Then we felt bound by this resolution; did we not?

Mr. KNORR. Well, yes, in a way. Now, I felt it would be useful for me to work on this problem and try to influence this report. I do not think the report is very important, in terms of influencing anyone, but to the extent that it may have an influence, I thought it was worthwhile for me to be involved, and try to see to it that this report, which, of course, is a compromise product, you understand, since it is the product of five people with different orientations and different background, would be as close to what I believe is a reasonable position as possible, and I think I can demonstrate that we have in this report succeeded in doing so by and large.

Senator MALONE. I would like for you to do that as we go along. I do not want to divert your line of thought. It is fine.

But you found, if you listened this morning to the discourse, that these reports and works and books that are written become cumulative, and finally a new book or a new report will refer back to a book or report written by the same person and it then becomes authentic and beyond reproach because it is a reference work.

Mr. KNORR. Yes.

Senator MALONE. So it still comes back to the slowly developed conclusion that the chairman has been reaching, that the way most of these people learn their economics is by reading the books that they themselves write.

Mr. KNORR. Of course, I do believe, Senator, that you are perhaps unduly suspicious of some of the persons in the State Department and outside the State Department, who have been working on these problems. They may not always be right. Nobody is always right.

Senator MALONE. We are trying to separate the wheat from the chaff.

Mr. KNORR. The way I see it, it is perfectly proper for people to ask themselves: Are there certain jobs? Are there certain objectives which this country has which can be achieved better through an international organization or not?

I do not believe there are many of this kind, but there are some.

For example, I am sure even you would not be opposed to the United States being a member of the International Postal Union, because this obviously makes sense. It makes it possible for us to send letters to a foreign country.

Senator MALONE. I think you are exactly right. Of course, first, you have to determine what your objectives are, and ours have been a little scattered up to now.

Mr. KNORR. Yes; and I think that is where the difficulty comes in because in this commodity field now, I think there is a real problem there. Senator, to most countries, this problem of extreme instability of prices which, when you look at the charts—and I know you are familiar with them—is a real problem to many countries.

It is not much of a problem to the United States, but to weaker countries, it is.

Senator MALONE. It has not been much of a problem so far, since there has been no general cartel in opposition to it, but we can see a problem, if there should be an ironclad cartel, we being the only nation to have the market, and they being the only nation in certain commodities, that have the commodity, and then we could see a combination that could ruin us.

Mr. KNORR. I agree, but this is precisely the reason why sometimes I and other people look at these problems and see whether there are not some kinds of arrangements, that we could be part of, which would be better than the ones they would conclude without us and against our interest.

For example, before the war, there were a considerable number of these intergovernmental commodity agreements, of which the United States was not a part; covering commodities like tin and rubber which the United States had to import from the outside world; and I think these agreements often did exploit the United States consumer.

Senator MALONE. And before we discovered synthetic rubber, the rubber price was what the traffic would bear. It had no relation to its cost or production.

Mr. KNORR. Yes.

Senator MALONE. There are other commodities. We could mention mercury. When we go out of the business because they can produce it cheaper with cheaper labor, then they take what the traffic will bear.

Mr. KNORR. But the point I really want to get at, Senator, is this one: We cannot, certainly not formally, prohibit or prevent other nations from joining up in cartels of the kind they had before the war because they are free nations. They may not want to do it as long as they are dependent on the United States for military protection or because we give them technical assistance, aid, or something. They may feel restrained as long as we do these things for them.

Senator MALONE. As long as we pay them with the taxpayers' money they might condescend to sell us the products at a high price.

Mr. KNORR. Well, that may be so. I, of course, think the United States should not do anything for any country unless it is also in the United States' interests to do so.

Senator MALONE. Is there any chance of you running for the Senate up where you live?

Mr. KNORR. No; not me.

Senator MALONE. You are making my speech.

Mr. KNORR. Well, I do not really think so.

Senator MALONE. Go ahead. I am very much interested in you. What you mean is we should get a return for what we do.

Mr. KNORR. Your relations with other countries, your relations between countries are, as you as a politician know, a bargaining situation.

Senator MALONE. Did you say I was a politician?

Mr. KNORR. Yes, and I don't mean this in a derogatory way.

Senator MALONE. No, sir. That is a thing I will never be. I am just an engineer.

Mr. KNORR. I don't mean this in a derogatory way.

Senator MALONE. No; I am in no way a politician. I just tell the truth.

Mr. KNORR. The politician is an important person in the democratic way. I think to be a politician is perhaps the most important thing in a democratic society.

What I meant to say is that your international situation is a bargaining situation.

Senator MALONE. I am an industrial engineer, and I understand what you have to do and where you have to get your raw materials to do it if I study it, which has been a great drawback to me here because I get worried at what we are doing.

Mr. KNORR. Well, of course, I was now talking in more general terms, but what I really meant to say is that it may, for example, pay the United States in its own interest to be concerned with the problem of instability in the outside world, one reason for this concern being that, otherwise, other countries may reestablish the kind of cartel arrangements they had before the war, which I think served to gouge the consumer in the importing countries many times.

Senator MALONE. Do you think this might prevent it?

Mr. KNORR. If you are in it you can prevent some of the arrangements from being made. That is one thing.

Senator MALONE. Can you? If you are in it, and bound, you certainly do not have the vote.

Mr. KNORR. We have done it so far. These countries obviously have been wanting to get into these agreements again since the war, and they have not done so so far. And the reason they have not done so so far is because the United States has told them that this is not the kind of thing to do.

Senator MALONE. It is because the Congress has refused to accept them. The State Department has put before us the international trade organization and many propositions that would bring it about if we approved it, but Congress has been the stumbling block.

Mr. KNORR. Let me say this: You will probably resent this, but I want to say it anyhow. I think, I really believe, that if you have the United States interests at heart one ought to look with an open mind at some of these problems. There are these problems which the other countries have and, if you are not included when they make their arrangements you may get arrangements among them that will do you a great deal of harm, and, to prevent that, it may be a good thing sometimes to be involved in international arrangements because you can prevent something worse from happening.

Senator MALONE. I see your point, what you are driving at, and I believe it, but it remains to be decided on the part of Congress as to whether the real interests, as to where the real interests of the United States lie and how best to prevent this sneaking up on Uncle.

Mr. KNORR. I think it is for the Congress, and I think it is for the President of the United States to decide where the interests lie. It is not always an easy thing to decide.

Senator MALONE. The Constitution of the United States is very plain, that the Congress, the legislative branch, regulates the economy of the Nation. It regulates foreign commerce, sets the duties, imports, and excises. There has been, through the passage of an act, a transfer of that responsibility of the Congress to the Executive. This problem has come to a head through the Randall committee's report, which is having a little rough sledding at the moment.

I do not attempt to speak for Congress. I can only speak for 1 out of the 96 Senators, but at least that one does not like it. The State Department, under the Constitution, has nothing to do with regulating the economy of this country.

Mr. KNORR. Not unless the Congress delegates.

Senator MALONE. Unless Congress extends the act beyond June 12 at midnight they will cease having anything to do with it.

Mr. KNORR. That is right. I personally hope the Congress will.

Senator MALONE. I am doing everything in my power to bring it about, and I think you agree with it.

Mr. KNORR. I think there we are on opposite sides. I meant that I hope the Trade Agreements Act will be renewed.

Senator MALONE. Why could you think it should be renewed?

Mr. KNORR. I don't think it is a terribly good law the way it stands. But——

Senator MALONE. Do you understand what it does? It transfers absolutely the responsibility of Congress to the Executive over the regulation of the national economy, through the regulation of foreign trade and the setting of duties, imports and excises. It delegates it to the Executive by a simple law, and they go ahead and make any trade agreement they want to make. They are not really trade agree-

ments; they are agreements to lower tariffs, a misnomer to start with.

Mr. KNORR. Only up to a point.

Senator MALONE. It has no effect on the foreign nation. No nation has ever kept one. They simply manipulate their currency, use this quota system, use their exchange permits, and use their trade permits, and hundreds of other manipulations that only countries that have lived by their wits for a hundred years know how to do and do do. Therefore, they do not keep the agreements; they have never kept one. You understand that.

Mr. KNORR. I understand, and I think you are quite right.

Senator MALONE. Then why do you say that you should turn the regulation of the domestic economy over to a State Department or an Executive that, by law, by the Constitution of the United States, places Congress in charge of foreign policy. The State Department can tie the economy of the Nation to the foreign policy so that they can trade an industry for some fancied advantage which we do not get, as it pans out.

Mr. KNORR. I see your point.

Senator MALONE. Just one man, the Secretary of State. Of course, they say he consults other people. I just never caught him consulting anybody, but he probably does. When he decides to trade the zinc business to Africa or to some other nation through a trade agreement, or the petroleum business to Venezuela, then we have a most-favored-nations clause, and no matter who he trades it to every other nation is entitled to the same advantage. Here is the decision of one man really or of the Executive, who is not responsible to anybody.

Probably the reason the Constitution of the United States fixed it in the Congress is because we do represent every precinct in the United States of America, and know what is going on in our States.

Mr. KNORR. Well, I fully agree with you.

Senator MALONE. Why do you say then, although I do not question your right to your conclusion, that you ought to give it to someone who, on the basis of a vague notion of national good, can trade away all the mineral industry, all the crockery industry, all of the watch industry, just by the wave of a magic wand?

I want you to understand what you are deciding.

Mr. KNORR. Yes.

Senator MALONE. So you believe they ought to have the continued authority to do that?

Mr. KNORR. Well, I think the authority that has been given to the Executive has been a strictly limited one.

Senator MALONE. How is it limited?

Mr. KNORR. Well, the law, for example, said that a tariff could not be reduced, as I recall, by more than 50 percent.

Senator MALONE. And then another 50 percent and then we have inflation.

Mr. KNORR. They are fixed duties.

Senator MALONE. So the Tariff Commission which, by act of Congress, is charged with the responsibility of regulating the duties on the basis of economics alone, that difference in the production costs, is helpless. They have no authority whatsoever.

Mr. KNORR. Well, there is a peril point provision.

Senator MALONE. Let me explain a peril point to you. They asked the Tariff Commission at what point it would imperil an industry, and they determined that point which should be the tariff. Now let us assume they took the peril point, which they never do. But let us assume they took it, and then signed an agreement with a nation on that basis, which is in full force and effect forever until the President should serve notice on the country with which it is made for cancellation, and before the ink is dry they can change the price of their currency in terms of the dollar and invalidate the agreement. Is that true? They could do that with that particular commodity that we agree to lower the tariff on.

Mr. KNORR. I suppose they can always find a way to do it.

Senator MALONE. They do find the way.

Mr. KNORR. But I do think that you are right, that they have done it. But I think it is probably because they had not really much of a choice.

Senator MALONE. Who did not have a choice?

Mr. KNORR. The other countries, the other governments.

Senator MALONE. I am not talking about the other countries' choice. I am saying that the peril point has no effect.

Mr. KNORR. I misunderstood you.

Senator MALONE. You understand that?

Mr. KNORR. Yes, I understand the peril point.

Senator MALONE. Why do we say it is a protection? You have always an escape clause. You escape it 3 times in 2 decades on 3 little commodities. In other words, you are simply not operative. All we do is just fix a trap. We used to catch the mustangs that way. You open a gate and when they come to drink you spring the gate, and when you spring the gate they are broke to a saddle and harness. That is what they do to us.

Mr. KNORR. Senator, of course, you know nothing about me, whereas I know something about you because you are a nationally prominent person.

Senator MALONE. I am learning about you, and I think you have a good philosophy, but I did not want you to accept something because you think you have the protection.

Mr. KNORR. I understand that if you reduce tariffs, in many cases, domestic industries will be hit and it may be harsh on producers, workers, even communities that are involved, and I do believe, by the way, that if this is done something ought to be done for such communities.

Senator MALONE. What would you do for a community in the mining business or watch business?

Mr. KNORR. That is really difficult, for a mining community.

Senator MALONE. It is difficult for any community because, if an industry is feasible there it is already there, and how are you going to make it feasible by financing through the Government and picking up the loss each month? We tried that for 20 years.

Mr. KNORR. I know that, but one has to look at the other side of the picture.

Senator MALONE. What is the other side?

Mr. KNORR. The other side is that the United States has also export industries which happen to be important.

Senator MALONE. That is so. How did we become exporters in these industries? For example, automobiles?

Mr. KNORR. In the last few decades.

Senator MALONE. We deliberately closed our production industries.

Mr. KNORR. There are also farm export products.

Senator MALONE. We cannot export a farm product unless we pick up the check.

Mr. KNORR. That is because of the parity system. Through the parity system we sustain farm prices at a level at which we can no longer sell it in the outside world except by subsidizing.

Senator MALONE. If we did not have a parity system, when you pay $15 a day or $10 a day for a man's work in the country, or whatever you pay—and a sheepherder costs us around $250 a month with his board—without the parity system you are still so far above the cost of production in other nations that there is no comparison.

Mr. KNORR. I don't think that is quite true, Senator, because the American worker in most industries is so much more productive than the foreign workers are. We know that is true in many industries.

Senator MALONE. How do we know that?

Mr. KNORR. Because studies have been made, because we can sell automobiles, let us say, in low-wage countries. Let us say we can sell locomotives in Japan, paying American workers in the locomotive industry a wage 10 times as high as the Japanese pay their workers.

Senator MALONE. How long do you think that is going to prevail when we put our factories over there? Mr. Paul Hoffman is putting a factory over there.

Mr. KNORR. I don't know anything about that.

Senator MALONE. Mr. Ford has 26 factories outside of this country, and says, frankly, that with his assembly line methods, with his know-how, with his foremen and superintendents, and with low wages, he can beat them to death over here. and he is starting to do it.

Mr. KNORR. Well, again, this is a particular case with which I am not familiar, but when you look at the picture as a whole I have a picture of this country as being just about the most progressive, economically and industrially. It has more know-how. It forges ahead faster.

Senator MALONE. Where is that know-how located?

Mr. KNORR. In the people.

Senator MALONE. Right up here in the head, isn't it?

Mr. KNORR. Yes.

Senator MALONE. I have been in South Africa, and, being an engineer, I have the know-how. I could have built a mill for chromite or manganese, and, had I not been in the Senate, I might have done so. What kind of a mill would I have built? The best in the world because it would have been the last one, and then I would have brought my shifters and superintendents from Colorado or Nevada.

Mr. KNORR. But you would have to pay them high wages.

Senator MALONE. Just a minute. You could pay them higher wages, but they are the shifters and superintendents, and then the 40-cent-a-day labor would work for them, and maybe it would take 4 or 5 or 6 of those 40-cent-a-day people to make one good Irishman, but you can pay 10 or 12 of them and have 8 left. So you can produce

it cheaper, chromite and manganese, in a 40-cent-a-day labor area than you can in America no matter what you have here.

You are talking historically speaking. You know, industry is about half smart, and so are engineers. You are in my field now. You read the book and you say we have the mills. The other people do not have them. But they have them just as quickly as they can build them, and now we are in the process, in our tax manipulation, of lowering the income tax on income earned abroad so that they can go over there with the cheap labor and make the stuff and send it back here, then bring the money back.

The evidence before our committee shows that in the Middle East oil companies, after the depletion allowance that they are allowed, can deduct the taxes paid in a foreign country in computing their United States income tax.

It just happens that the taxes in that country are just about equal to what we would normally collect, and we do not get anything.

Are you aware of all of those things?

Mr. KNORR. Not of all of those things. My knowledge is a very limited one.

Senator MALONE. Then when you say that you conclude that with our knowledge and know-how and machinery we can beat anyone——

Mr. KNORR. We are doing it right now, but not in every field.

Senator MALONE. We did do it by taking our factories there.

Mr. KNORR. By the time they start that we start something better. I have enough faith in this country that we will continue to do that.

Senator MALONE. You are out of the mineral business now. You know that? Where is your new method?

Mr. KNORR. The mineral business is a special business.

Senator MALONE. You are out of the watch business and the crockery business. Where is your special business there?

Mr. KNORR. I will explain that, if I may.

Senator MALONE. Do you want to teach them a new business?

Mr. KNORR. The mineral business is a very special one because there, first, you come up against the fact that higher grade deposits have often been exhausted.

Senator MALONE. They are not always higher grade.

Mr. KNORR. Or conveniently located ones.

Senator MALONE. No. They just have lower wages and taxes.

Mr. KNORR. You think that is all?

Senator MALONE. It is not all, but it is a big item so that the conspiracy now with the free trade and the cutting off of the taxes in bringing the income back could be called a conspiracy to destroy the workingmen and the independent business of this country, and that is what it is doing.

Mr. KNORR. Taking the watch business, it is quite clear that no country, including the United States can expect to be the most productive in every field. This is obviously true. In fact, if a country were, there would be no reason to trade with anybody. There would be no rationale in trade. It couldn't be done.

The purpose of trade, as I see it, is that countries can have a higher standard of living if they concentrate a little bit on making those goods they can make best.

Senator MALONE. Is there any other nation that has a higher standard of living than we have?

Mr. KNORR. I think the United States has the highest.

Senator MALONE. Let me give you another thought to take home with you, and I think it will do you good.

If I were a naturalized German in 1940, and I had been in World War I a long time ago, I would be thankful for the kind of information I am about to give you. For 175 years this country preserved opportunities for an individual, the children growing up, becoming of age, getting married, and raising families, and people changing businesses. The people may be very poor, and most of us were when we started, and most of us still are in values of property and monetarily, but any time you could, with the knowledge you acquired with your education—and I am interested in your education—you are probably among the very top bracket of educated people in this country—you could enter any industry that you learned. Suppose it is production of lumber or building materials. Suppose it is a mine, or suppose it is a bicycle factory, or a bookbinding shop, or just anything. If you could find a place in the United States of America for the last 160 years until the last 15 where, paying the same wages that they pay every place else, and paying the same taxes that you pay every place else, with your raw material and transportation, all of your factors, you could figure it was feasible if you could get some people to put in the money and establish your business, and your appraisal of competition was correct—you were in business; if they were incorrect you failed and lost your money. That is our American system, and that opportunity for 160 years existed in this country.

Do you know if it exists now? If you want to go into business, you have to figure on what? Seventy other nations with 70 other standards of living wages, what they can do to you, because tomorrow the State Department can put you out of business.

Now we have become great, the most wealthy nation in the world, not with the highest grade of materials. We have stripper wells running in Pennsylvania and Kansas on 2 barrels a day. We would laugh at that in some of these foreign countries, but we do it, and that opportunity existed here. It does not exist now. You go out and try it. You are up there on a salary, but you try to set up a business, and I do not care what business, and the State Department can put you out tomorrow.

Under the conditions under which you established your business you can be making a success, but under its great knowledge of the national good it may decide that it is better that Belgium bring in the tool steel instead of someone in Pittsburgh, or that it is better that Switzerland make the watches rather than somebody up in New England, that it is better that South Africa produce zinc or lead or copper rather than someone in this country. And if it says that it is for the national good you are out of business. It that what you want?

Mr. KNORR. I would like to say two things about that.

Senator MALONE. I do not think you understand that.

Mr. KNORR. I think I understood it. I think I have enough imagination to understand that.

Senator MALONE. It takes more than imagination. It takes experience in his country.

Mr. KNOOR. I have never been in business. That is true.

Senator MALONE. I can see that.

Mr. KNOOR. Therefore, it takes imagination.

But, Senator, you believe, I think, also in competition domestically, and many people are put out of business by domestic competition; and you think that is right, or see nothing wrong with it because you are for antitrust laws and so on.

Senator MALONE. I want their competition between our own States.

Mr. KNORR. The United States has, let us say, during the last 4 or 5 years—this is off our real subject—exported more than she has imported. In other words, we have competed with foreign producers more than the outside world has competed with us.

Senator MALONE. In the first place, I want to reexamine that statement because it is not true. What you are including is the money we are exporting, and the war material we are exporting, and we call it exports.

Our chief export has been cash since World War II. I put a table in the Congressional Record 4 or 5 years ago that, when you take all the things you have exported, money, war material, and everything else, you are correct. But it comes out of the taxpayer's pocket. It is not products at all, and it runs about 10 or 11 percent. It has run 4½ to 5 percent for 40 or 50 years.

When you, in an opposite column, set down what you give away and deduct, you are back to 4½ or 5½ percent. Did you know that?

Mr. KNORR. I know that.

Senator MALONE. What kind of trade are we talking about? You make that statement to an audience and nobody knows the difference and it is quite an argument, but it is not true.

Mr. KNORR. I think it is still true by and large.

Senator MALONE. I wish you would write me a letter after you examine this on this subject. You get down and study this for your own good.

Mr. KNORR. I have actually studied it, and I teach it, too.

Senator MALONE. I know you teach it, and that is the dangerous thing in this country when you do not understand that we give away $7 billion or $8 billion a year.

Mr. KNORR. I understand that.

Senator MALONE. Did you deduct the $7 or $8 billion and the amount of war materials that we are giving away?

Mr. KNORR. Quite.

Senator MALONE. And we have still increased the foreign trade?

Mr. KNORR. Yes. It is quite clear that when one country trades with the outside world, unless you give the money or lend the money——

Senator MALONE. That is what we did.

Mr. KNORR. Which is what we did, but we didn't just give them money. We also lend money.

Senator MALONE. But we do not get any back.

Several people told me over there when I was on my trip that "You should just continue lend-lease and not expect anything back because you know we get nothing back."

Mr. KNORR. In the long run I quite understand, because this is as clear as anything can be, that the value of your imports cannot be higher or lower than the value of your exports. They must be equal.

Senator MALONE. Unless experts interfere. Unless you have money to buy a thing you cannot buy it. I may need 2 or 3 suits of clothes

but if I do not have the money and the bank will not give it to me I cannot buy, so that the exchange balances, if you let it alone. But when you interfere and give $7 billion a year to foreign nations to buy it and call it foreign trade, even I cannot take that.

Mr. KNORR. I would not put it that way.

Senator MALONE. I do know that you did not put it that way, but that is true.

Mr. KNORR. I am quite aware of the problem.

Senator MALONE. Will you write me a letter after you examine that particular thing, a letter just to me, not for the record.

Mr. KNORR. I will try.

Senator MALONE. I wish you would because I know you are putting out this information wherever you go, and I can only combat it on the Senate floor. I do that, and nobody wins the argument, but they win it in all the universities practically in America, for some reason.

Now let us get on with this other thing. You write me that letter. I simply cannot let the statement remain unchallenged that we have increased our foreign trade deducting what we have taken from the taxpayer.

Now the great dollar shortage was not in Europe; it was in the American taxpayer. We are the ones that pick up the check for the $7 billion a year. We have a real shortage, in case you had not heard. The taxpayers are just about ready to rebel.

Mr. KNORR. I know it. I am one myself.

Senator MALONE. It can run all right from a university or from Washington as long as you can get somebody to pick up the check.

Mr. KNORR. The question of the foreign aid program is an entirely different one.

Senator MALONE. If you want to argue that we should give it to them——

Mr. KNORR. I didn't argue that.

Senator MALONE. You are entitled to that conclusion.

Mr. KNORR. All I would say is that if the United States Senate believes it is not in the interest to give away any money it should not give away any money.

Senator MALONE. Now let us get to this thing that you helped build. Now should we have an advisory commission, and what should be its terms of reference? Now we have had the State Department officials here before and I think they are entirely right, and I complimented the Assistant Secretary this morning on the vote that his man cast over there. But do you think we should have done it?

Mr. KNORR. I think it was entirely right for the United States to vote against it. I would have advised the United States Government to vote against it if I had been asked.

Senator MALONE. You think it would injure us to enter into such an agreement?

Mr. KNORR. I don't think it would would injure the United States. I cannot really see that it would injure the United States very much but, it not being in the United States interest to vote for, I would have advised the United States Government not to do it.

Senator MALONE. You do not think it is in our interest?

Mr. KNORR. No. And what is not in the United States interest should not be done by the United States Government.

Senator MALONE. God bless you for that statement.

Mr. KNORR. On basic things we are obviously agreed. It is a question of instrumentalities here.

Senator MALONE. If you could just study the effect of a $275 billion debt, a $260 billion increase in 20 years through WPA, PWA, two wars, preparation for war to keep prosperity, and giving away $50 billion since World War II to increase this trade that you are talking about——

Mr. KNORR. That wasn't done for that reason anyway.

Senator MALONE. Of course it was.

Mr. KNORR. I don't think so.

Senator MALONE. It was to rehabilitate. That is what the Senate said, to rehabilitate industries in Europe and, of course, I said then and I say now, that they are arming Russia with the industries we build. All you have to do is pick up your daily press dispatches. But that is neither here nor there. We did that, but do not call it foreign trade.

Mr. KNORR. I wouldn't call that foreign trade, and I did not call it foreign trade.

Senator MALONE. To get this started, let me quote paragraph 273 of your report, Commodity Trade and Economic Development, by the United Nations expert:

> It seems to us that there is at present no effective international procedure for discussing and proposing action on the general problem of stabilization—a matter which transcends the problems of particular commodities. The present organization is directed toward piecemeal action, commodity by commodity. We do not think that that is sufficient; a general and simultaneous approach to the problem of stability in its many aspects is required.
>
> It is possible that a gap in international organization has here arisen unintentionally, in the absence of an international trade organization as envisaged in the Habana Charter.

Now do you think that the gap was unintentional?

Mr. KNORR. Well, to answer that question I have to make a little detour. I began to explain at one time that I saw my main purpose to get out of this committee a group of very different people, a report which would be, well, as close to what I thought was right and what I think would be good policy as possible, to prevent a report of the kind the assembly actually wanted, and I can prove that by quotations from this report.

Now, what I often did in my own voting, in that committee—and this was a bargaining situation all the time, I can best explain by a story. You probably heard of—I have forgotten his name, but he was a labor mediator, and he said "You know what I do. I always give the decision to one side and the language to the other."

There is a bit of wisdom in that, and I think I got my point adopted on many of what I considered important parts of this report. When it came to this chapter here, to this problem of establishing another piece of international machinery, I told them "I don't think it will do any good, and I don't think it will do any harm. This is not a problem that can be solved by any international machinery, but if you want to have it, I will not dissent."

In a situation like that you sometimes have to give something, and here I was quite sure I gave something that was meaningless, that was only language.

Our recommendation, Senator, I must point out, is not the resolution that was actually adopted. It is quite a different thing from what we suggested here.

Senator MALONE. Here is paragraph 274:

> We therefore propose that the Economic and Social Council should establish an intergovernmental commission, which we will refer to as the Trade Stabilization Commission. In order to provide permanent representation for the most important trading countries and an adequate rotation of representation for the others. * * *

Mr. KNORR. Well, what we had in mind——

Senator MALONE. You established what they wanted established, and that was an international organization to take the place of the international trade organization.

Mr. KNORR. Nothing like that.

Senator MALONE. That is what it says here.

Mr. KNORR. What we had in mind there, and I think it is quite in keeping with the language, is that you would have a body advisory to the Economic and Social Council which would consult with each other on and discuss raw materials markets, and make suggestions or proposals to the Economic and Social Council about action.

Senator MALONE. Is there anybody on that commission that has ever traded actually in commodities or knows anything about them?

Mr. KNORR. I don't think so. I don't think it would have made a difference. In any case, it has never done any harm to anybody for a group to get together and discuss a problem and consult and make suggestions. The question is whether these suggestions will be adopted.

Senator MALONE. By whom did they have to be adopted?

Mr. KNORR. Well, that is the point. The Economic and Social Council can adopt as many resolutions as it wants. All it can do is, in its turn, recommend to member countries that they do such and such, and these member countries don't have to do it.

Senator MALONE. But they all profit except us.

Mr. KNORR. Nobody profits if nothing happens, if nothing is done.

Senator MALONE. But obviously something has been done and they can now continue the organization without us.

Mr. KNORR. What has been done?

Senator MALONE. They passed a resolution regardless of our vote, and will go ahead evidently with an international organization.

Mr. KNORR. Now, if you compare, Senator, the resolution which the Assembly passed with our recommendation you will see that this is a quite different thing. You see, this is very different because they got the parity scheme in there again which we threw out. This is not what we recommended at all.

Senator MALONE. Is this the resolution that actually passed?

Mr. KNORR. That is the resolution they actually passed which I would never sign. This is harmless in here. This is not.

Senator MALONE. But they passed this one.

Mr. KNORR. They passed this one.

Senator MALONE. And the forerunner was the thing you passed.

Mr. KNORR. But this is completely opposed in principle to what we said.

Senator MALONE. Dr. Knorr, I want to say something to you.

In a way the Senate of the United States and the Congress of the United States is the buffer for the people of the country against the theorists that are honest in their opinions, no doubt, but sit there in this armchair on a soft cushion, and mostly in air-conditioned offices, now, and everything is wonderful. Also then against nations we are the buffer, nations that would profit by gaining a piece of our markets and a source of our wealth.

Mr. KNORR. Well, my feeling there was, and still is, that if I had not been on the committee somebody else would have been on it, and it might have been a report which was the worse for that.

Senator MALONE. I have heard that, too. Do you know what some people do? They advance the theory that if I do not vote for this queer stuff that is going on and then my people defeat me that somebody comes in that will be worse than I would be, so I should vote for staying off. I do not believe that. I think if you had come right out and stated your views as you have here today it would be better.

Mr. KNORR. I have.

Senator MALONE. No; you did not go against this; you modified it.

Mr. KNORR. Let me read you one statement. For example, I made a statement a little while ago which you liked very highly, that we should not mix trade and aid.

I mean, I can show you the statements.

Senator MALONE. I read your statement here, and it says:

The present organization is directed toward piecemeal action, commodity by commodity. We do not think that this is sufficient; a general and simultaneous approach to the problem of stability in its many aspects is required. It is possible that a gap in international organization has here arisen unintentionally, through the absence of an international trade organization as envisaged in the Havana Charter.

You recognize that if that had been adopted this would not be necessary. Now in 274 you say:

We therefore propose that the economic and social council should establish an intergovernmental commission, which we will refer to as the Trade Stabilization Commission. In order to provide permanent representation for the most important trading countries and an adequate rotation of representation for the others, it would probably be necessary to have 8 or 9 member governments.

I know what you said, and it paved the way for this resolution right here.

Mr. KNORR. I have told you before that this is a compromise document.

Senator MALONE. I understand that, but you signed it.

Mr. KNORR. I signed it, and I am not sorry I did sign it.

Senator MALONE. Let me read you another one, 278:

The work of the Commission would involve exchanges of views between governments on possible types of action to which they may not wish to appear publicly committed; and there is a very real risk that premature knowledge of the Commission's deliberations would produce harmful effects in the commodity markets. We therefore recommend that, contrary to usual United Nations practice, the Commission should meet in closed session except when it decides otherwise. We would expect that, in addition to the formal meetings, occasions would be required for informal exchanges of view among the representatives of the member governments, meeting in private.

I will tell you what is wrong with it.

Mr. KNORR. I can tell you why that was put in. This was put in because if Government representatives, which would be on this Com-

mission, supposing a commission of this kind were established, would have consulted on what might be done in case the bottom would fall out of all the primary materials markets, speculators would not have any advance notice of the policy.

Senator MALONE. Are you naive enough that you feel you can meet with those representatives, and no information will seep out of here?

Mr. KNORR. I am not. In fact, I am so little naive that I knew this whole recommendation is meaningless.

Senator MALONE. I disagree with you, it is the foundation of the thing they passed.

Mr. KNORR. I know full well this is a problem. I see nothing wrong with the fact that people should discuss a problem, and I knew full well that if the Government of this country and other countries had wanted a committee of this kind, had seen a need for it, they would have established one long ago. They will not establish one just because a few experts say so. I thought this is something innocuous that I can go along on with the rest of the committee because they wanted it very badly. I thought that this is harmless, and I still think it is.

Senator MALONE. You laid the foundation so that when the outfit met——

Mr. KNORR. Anybody could have told them this is not the thing.

Senator MALONE. This has been recommended, and they tried to put teeth in it. They used you as a stepping stone.

Mr. KNORR. I had nothing to do with this, and this is not what we recommended.

Senator MALONE. They just used you as a stepping stone.

Now this is paragraph 109 of your report. It is taken by your group from the Paley Commission:

> The Commission believes that, on balance, the international arrangements that hold the greatest promise for stabilizing materials markets and, at the same time, for promoting the increased production of materials that the future will demand are the multilateral contract type of agreement and buffer stock agreements either without or with quota provisions on exports or production. The appropriate mechanism for particular problems must be decided case by case.

In other words, you have laid the foundation there to limit the exports or imports of the Nation. Was that just a compromise that meant nothing?

Mr. KNORR. What we have done, and this is qualified in many other statements, we have looked at different kinds of international stabilization agreements. Well, first of all we did agree that there is a problem. There is a problem of extreme instability in materials markets.

Senator MALONE. That is the reason they hire engineers and the reason they hire lawyers and the reason they do that is because there are problems.

Mr. KNORR. This is the problem as we saw it. We were concerned with extreme ups and downs of prices. We thought differently from the Assembly. The Assembly wanted these averages to be controlled for purposes of income distribution, which we were against. What we were concerned with were these extreme ups and downs, and we thought that if you could find arrangements that would promise to work properly, that would, let us say, keep these fluctuations within this range without interfering with the long-run price of the market, this would be all to the good.

I did believe so and still do. The question is whether such arrangements can be found and about that I am skeptical. About this we do not know nearly enough to give a definitive answer. We came, in this group, to the conclusion that quota agreements of the cartel type would not and we declared so in this report. We looked at the International Wheat Agreement type and said that there are certain things to be said for it, and then I can quote if you like, there are a lot of things to be said against it.

Senator MALONE. Go ahead and tell us.

Mr. KNORR. All right.

Senator MALONE. This does not mean anything, this report.

Mr. KNORR. You want my personal opinion rather than what is in the report? This is not my book.

Senator MALONE. You say the book does not mean anything, and you signed it because it was a compromise.

Mr. KNORR. I said this about the last chapter and not the whole thing. I would like to read to you some statements as you have done to me because they are all kind of pulled out of context, which is not an entirely fair procedure.

Senator MALONE. Why do you not tell us?

Mr. KNORR. The International Wheat Agreement, let me tell you what I believe about the International Wheat Agreement. I say about the International Wheat Agreement I would be extremely skeptical that we could have many agreements of this type either in wheat or elsewhere; that, however, there are certain advantages to this type of agreement as an insurance agreement if you can prevent extreme price falls or extreme price rises, this may be an insurance feature that may at times be favorable to the exporting countries and at times to the importing countries. There are disadvantages, however, to doing so. There are great disadvantages to doing so. When you adopt a policy there is always a cost, and I do not mean just money costs.

Senator MALONE. Somebody has to put it up.

Mr. KNORR. In the wheat agreement there is not much of a financial problem.

Senator MALONE. Well, it does not work; you say that yourself.

Mr. KNORR. The costs are of a different kind. The costs are that you may be interfering with the distribution of wheat production in this country or the world over in an undesirable way. This may be your cost. If this turns out to be your cost, and it is too high, throw the wheat agreement out of the window. I say that I am skeptical that much can be done with an International Wheat Agreement type of arrangement, but we have not collected enough experience with it, and I say look into it, let us watch and see what happens during this current period.

If it does not work out, the next time around we do not have to renew it, and we do not have to apply it to other commodities unless we want to experiment further.

Senator MALONE. We did not have to renew it this time, knowing that it does not work.

Mr. KNORR. How did we know it would not work?

Senator MALONE. You have had it for some time, have you not?

Mr. KNORR. I am not quite sure that the purpose of the International Wheat Agreement that you have in mind is the one that the authors had in mind.

Senator MALONE. You see, England did not sign it. They were too smart for that because they knew they would get the wheat cheaper, which is a practical reason.

Mr. KNORR. They were willing, however, to come in if the United States had not insisted on so high a price. The British figured that the wheat price was going to go down. They were willing to commit themselves to pay such and such a price, but the United States insisted on a higher price, and there was a lot of haggling, and I think a difference of 5 or 10 cents prevented agreement.

Senator MALONE. If we could pay, hire someone in England, a practical man that knows just what international trade is founded on, it would be worth $1 billion a year.

Mr. KNORR. The British have made many mistakes with these agreements. In this case they may win. I know in many cases after the war, when prices were going down, they committed themselves to pay higher prices, and they would have done much better without these long-term contracts. On the whole, they probably have lost more than they gained.

Senator MALONE. What are some of the things in favor of these agreements?

Mr. KNORR. The only thing I see in favor of these agreements is an insurance feature; that an exporting country can be sure that the price of wheat, while it may fall a great deal, will not fall to a catastrophically low level; that is an advantage. An importing country can be sure that the price of wheat, while it may rise a great deal, will not rise to a level that would be catastrophical from its point of view. It is an insurance, a compromise.

Senator MALONE. How do you guarantee it?

Mr. KNORR. How do you mean, guarantee it, you mean whether the countries would actually pay it?

Senator MALONE. Yes.

Mr. KNORR. According to the agreement, an importing country would have, even if the wheat price would fall let us say to a dollar a bushel, they would import such and such a quantity at $1.20. That is what they would have to do because that is what they agreed to do in the agreement.

Senator MALONE. Do you have any record of any of them ever doing that?

Mr. KNORR. It has not happened because prices have been going up. Recently they have gone down. They can go down quite a ways before the extreme points are touched.

Senator MALONE. Who fixes the limit of fluctuation?

Mr. KNORR. The limits are fixed by the countries when they work out the agreement.

Senator MALONE. Well, they have a new agreement each year and fix a new limit up and down, do they not?

Mr. KNORR. I think it is three years.

Senator MALONE. Three years?

Mr. KNORR. The agreement was renewed for a three-year period I think.

Senator MALONE. Then they would have to meet and determine what for that 3-year period the limit up and down is going to be?

Mr. KNORR. That is correct.

Senator MALONE. Who picks up the check in case the limit going down is exceeded?

Mr. KNORR. That depends on what the market does. If the market goes down the importing countries will have to pick up the check.

Senator MALONE. I am talking about the low period. Who picks up the check then?

Mr. KNORR. If prices go very low?

Senator MALONE. Yes.

Mr. KNORR. The importing countries do.

Senator MALONE. They just get it cheaper.

Mr. KNORR. Oh, no, that is the point. If your price falls below, let us say this limit, they do not get it at this low price, they have to pay this higher price for a specified quantity.

Senator MALONE. Is there any record of any nation ever paying above the market price in any agreement that they have ever made?

Mr. KNORR. Well, I am not really familiar with what has happened to the wheat market recently.

Senator MALONE. Other agreements.

Mr. KNORR. You have never had this kind of agreement before except with wheat, and with wheat it happened that during most of the period since the war the price has been going up rather than down.

Senator MALONE. You know that in wheat and cotton they are now getting machinery and using our methods and increasing their acreage to an alarming extent, do you not, to an extent that is alarming to any agreement?

Mr. KNORR. I do not quite see the bearing of that.

Senator MALONE. Whenever you guarantee the price like we did on potatoes one time?

Mr. KNORR. Yes.

Senator MALONE. Everybody knows that if you guarantee a profit everybody is going into it and potatoes were 10 feet deep between here and San Francisco if they had been spread out. We had to back out of it, paint them green, feed them to the hogs, and so forth. Is that not about the end of all aggreements like that?

Mr. KNORR. I hope not.

Senator MALONE. You hope not?

Mr. KNORR. These kinds of agreements should not be made.

Senator MALONE. You do not believe in these agreements at all?

Mr. KNORR. I think there are types of agreements in certain situations where it may be to the advantage of different countries to go in for them, but I am very skeptical of anything like a parity scheme kind of agreement.

Senator MALONE. There is a paragraph here which I would like to read, 107 on page 34:

> A further impulse toward the establishment of buffer stocks is contained in the report of the United States President's Materials Policy Commission.
>
> "The violent fluctuations subject industrial nations to economic difficulty since periodically they have to pay excessive prices to overcome shortages of materials and thus, at the root of all production, encounter a potent inflationary force. Even greater injury is caused to the economies of resource countries which often depend heavily on the marketing of a few materials. Short-term and violent boom-and-bust cycles cause unemployment, severe declines in their revenues, foreign exchange and balance of trade positions, all of which hinder them in planning and carrying through balanced programs."

No one doubts the truth of that matter. The silly things that are advanced to cure it are the things that people object to. They have bothered us for 2,000 years. You see, it seems that you endorse this buffer stock setup.

Mr. KNORR. I do not.

Senator MALONE. You quote from pages 83 and 90 of the first volume of the Paley Commission report to support your recommendation. Mr. Paley appeared before our committee on April 9, 1954, and I asked him about the buffer stock recommendation, and this is what he said:

> Senator, I am not recommending the recommendation of the buffer type of control as I have repeated 2 or 3 times today. I said I had very serious misgivings about it. I think it would be a mistake if it were introduced. I think it would be at times at least in contradiction to the free price competitive method which we have relied on successfully during the many years of our industrial growth.

Of course, it is contradictory, but all through your report, you are recommending new commissions and buffer stocks and various things, and they use this as a base to pass the thing that even you do not want. Here is Paley, who wrote five volumes that cost $1 million, and had very good data.

Mr. KNORR. It is a useful report for many things.

Senator MALONE. Very good data, I am not through with it, but it was used to teach the people of this country that we cannot produce these materials, we must bring them in. Now they are using it over at West Point. I am not finished with that yet.

Now they quit that after we discovered the book. Now they have Mr. Paley as a textbook. They will have this book of yours over there and then this resolution passed by the United Nations, and we have hundreds of experts all over the United States teaching that the United Nations is the policy we must follow.

We did pass an act here making them put the American flag up above it, and it took a little while to do that.

Do you not think there is a great deal of danger in reports such as the Paley report and your own report which is in circualtion after the authors may have changed their mind and I must say it is a pleasant surprise to me that you yourself do not believe it.

Mr. KNORR. As far as this particular final recommendation——

Senator MALONE. The final recommendation is what everybody else reads.

Mr. KNORR. But all these recommendations amount to is why do you not set up another committee and have these people discuss the problem. This is the way to bury a problem decently, I think.

Senator MALONE. And you think this one ought to be buried?

Mr. KNORR. And it will be, I am confident of that.

Senator MALONE. You have paid for your report right now with that statement. It is worth an afternoon's work.

Why do you not run for the Senate up there?

Mr. KNORR. I am not even born in this country.

Senator MALONE. The only office you are barred from is that of President.

Mr. KNORR. Yes; that is true.

Senator MALONE. You would be a very valuable addition down here in Congress, because I believe fundamentally you are all right.

Mr. KNORR. But professors generally do not do very well in politics.

Senator MALONE. Neither do engineers. The only thing I would disagree with you on now is that you should not—in this thing you ought to have made a minority report and put down exactly what you tell me today that you believe.

Mr. KNORR. I did consider that, but I felt it was much better for me to get the other members of the committee around to my view, making certain compromises.

Senator MALONE. Nothing to indicate here that you believe any different than this report until your testimony here today, which has been very enlightening.

Now I am going to read paragraph 81 of your report, page 26, as follows:

> We indeed find it necessary to point to some further effects of Government bargaining on primary commodity prices. There are strong grounds for assuming that in such bargaining, viewing periods of commodity scarcity along with periods of commodity abundance, the bargaining power of the underdeveloped countries tends to be inferior to that of the industrial countries. This inferiority is likely to prevail because the economically underdeveloped countries cannot afford to carry large commodity stocks so easily as the industrial countries; because they require prompt receipt of income and foreign exchange for their export product; because their vulnerability to instability in primary product markets makes them even more interested in international stabilization measures than the industrial countries are; in short, because they are economically underdeveloped. The widespread adoption of international stabilization measures must inevitably increase the extent to which primary commodity prices are influenced by Government bargaining. To the extent that the bargaining strength of the underdeveloped countries is exceeded by that of the industrial countries in actual bargaining situations, the latter countries would enjoy an edge of influence in the negotiation and renegotiation of commodity stabilization arrangements. Should they exploit this superiority the economically underdeveloped countries would not only suffer an unfair disadvantage, they might also find it necessary to decide that stability would be bought at too high a price.

Now, would it not be much better to get the Government out of commodity markets rather than set up new controls and allow the law of supply and demand to operate?

Mr. KNORR. Now this is an excellent illustration, and let me tell you that I personally wrote paragraphs 74 to 83.

Senator MALONE. You do not agree with 81?

Mr. KNORR. I do not disagree with it.

Senator MALONE. You do agree with it?

Mr. KNORR. Yes, I do, but let me explain what it means in my opinion. Now you have to look at this whole section, which is entitled "Signposts for Remedial Action," from 74 to 83 as a whole. Now if you read this in sequence you will see that from 75 to 79 I throw out what the assembly wanted us to do, namely, to monkey around with fair and equitable prices.

Senator MALONE. And to include distribution or what they call entitlement for consumption.

Mr. KNORR. We threw it out by all these words here. For example, in 79 we say, and this was signed by all the members of the committee, "It is our conviction that it is preferable not to mix 'trade' with 'aid'."

Senator MALONE. Why do we have aid in the first place?

Mr. KNORR. We do not recommend aid in here. Seventy-six starts as follows:

> But, viewing the world as a whole, one condition of growth is surely that productive resources should be allocated efficiently and, hence, that this allocation should be adapted as quickly and as fully as possible to fundamental long-run changes in the conditions of supply and demand.

That is, the free market.

> As long as no alternative means exists for signaling and stimulating the required changes in resource use, we affirm that long-term changes in the price relationship between commodities must be permitted to perform this function as best they can.

In other words, here we tell the Assembly, "You are all wet about your fair and equitable prices." The free market ought to decide how resources are to be allocated.

Senator MALONE. That is section 80?

Mr. KNORR. This is all the way from 75 to 79. Then, in the last paragraphs all we are saying there——

Senator MALONE. That is 83?

Mr. KNORR. Yes. In other words, we traded, you might say, in a manner of speaking, some sentences in 80 and 81 for the real commitment in the paragraphs from 75 to 79.

Well, Senator, this is the way these things are done. You know that when you work out a compromise you try to get the best bargain for your side.

Senator MALONE. I do not know anything about compromising a principle that will kill the country I live in.

Mr. KNORR. I would compromise no principle; you cannot show me that I did.

Senator MALONE. I did. You do recommend these organizations be set up?

Mr. KNORR. This recommended organization is meaningless.

Senator MALONE. I am glad you made that entirely clear, and I think again you have paid your way to the committee. We know that, but the people do not know it. The New York Times and the newspapers of the country and the columnists take a thing like you have built here and pick out the things that are favorable to the distribution of wealth of America and use them and sell our people on them, in our schools.

Now let me say something to you. Ever since World War II we have been persuaded to buy foreign trade. That is the reason why I wanted you to reexamine your figures, deducting the seven or eight billion dollars a year that we put out from foreign trade and see where you land. So you say here, "It is our conviction that it is preferable not to mix 'trade' with 'aid'."

Do you know where that slogan came from?

Mr. KNORR. I think it was Rab Butler.

Senator MALONE. You are right. I pinned it on him 2 years ago, and he is smart. They also created reciprocal trade, and it is not reciprocal and was never intended to be, but as long as you can feed the American people, the taxpayers, slogans like that it has been very effective. Dollar shortage. The only dollar shortage that ever existed was that of the American taxpayer, and he was prepared to buy bonds, and that is the reason that we could raise money to make up the deficit in foreign trade.

Mr. KNORR. I do not know.

Senator MALONE. I am telling you. Now 79, here is what you say:

It is our conviction that the Government ought not to mix trade with aid.

I am glad you said that. That is good enough. I think it is a good note to close it down on.

If aid is to be extended by the advanced to the economically less developed countries—and this in our opinion is in the interests of all—it should preferably be given by means that will not distort the flow of trade or the long-run trend of prices. The function of these prices is to reflect changes in the underlying conditions of supply and demand and to promote an allocation of productive resources that maximizes world economic growth.

It means the distribution of the wealth of America to the less fortunate countries; it could mean nothing else, could it?

Mr. KNORR. Yes.

Senator MALONE (reading):

And this in our opinion is in the interests of all. It should preferably be given by means that will not distort the flow of trade or the long-run trend of prices.

You could not believe that with the other statements you have made to me.

Mr. KNORR. I do.

Senator MALONE. "If aid is to be extended, and this in our opinion is in the interests of us all," you believe that we should divide our wealth with all the nations of the world that have a lesser living standard?

Mr. KNORR. I do believe this much, that under certain circumstances it is in the interest of the United States to give aid to foreign countries. I do believe that, but I do not believe in mixing——

Senator MALONE. What are the circumstances?

Mr. KNORR. We may have to buy an ally. I am not talking about particular cases.

Senator MALONE. Can you?

Mr. KNORR. I do not make foreign policy.

Senator MALONE. Can you?

Mr. KNORR. Sometimes you can.

Senator MALONE. Where?

Mr. KNORR. Or sometimes you have to support an ally.

Senator MALONE. Can you?

Mr. KNORR. Sometimes.

Senator MALONE. You are what we call a neutralist.

Mr. KNORR. Not all countries. There are some I would not trust, I will admit, and I am not going to mention any, but that is where you are going to be smart.

Senator MALONE. You are going to become a good professor one of these days.

Mr. KNORR. I hope I am not a bad one now. I do believe, for example, that sometimes you want to support a party or ruling group in a country because it is in your interests to do so. In other words, aid may be a good investment when it is in your interests that something happens some place, but only if you can be sure.

Senator MALONE. How can you be sure?

Mr. KNORR. You cannot be entirely sure, but if it is reasonable to expect that by giving such aid you can achieve your purpose, then I would say do it, if you have no better alternative. You would

do it, too, if you were Foreign Secretary, Senator Malone; you would be doing it, too.

Senator MALONE. Of course, that is not true.

Mr. KNORR. Not all that has been done.

Senator MALONE. I will tell you why. Could I tell you why? No nation ever keeps any agreement in the long run when the chips go down in an all-out war except when it is to the interests of that nation because no one can commit it. Where are the pacts we signed—the Kellog Pact, the Dawes Pact, 101 pacts we have signed, and now we are signing pacts every time we catch two or more citizens throughout the world, and we sign a pact.

Mr. KNORR. I agree.

Senator MALONE. Let me tell you. I have an interest in you now because I think fundamentally you are sound. When the chips go down you do not have to have agreements. Whatever nation's interests are with you will be with you. Whatever nation's interests are against you will be against you; that is the history of the world for 2,000 years.

Mr. KNORR. I agree with that.

Senator MALONE. Then why do you say you have to buy them?

Mr. KNORR. With one little difference, that some nations think they owe it to their self-respect to keep the agreements they have made. Not all of them do, but there are some who do, and you have to know which ones they are.

Senator MALONE. Well, we had one that tried to pay its debt and did not do a very good job of it, and we cannot even send them a messenger now, just one. That is all we ever had out of the whole 70 of them.

Mr. KNORR. You mean Finland?

Senator MALONE. Yes. We do not blame the other nations; we just blame our own people for trying to fool our people into thinking that they are making agreements which will protect us and keep us out of war, which on the face of it are against all economic situations and problems and impossible to keep. Where do you think Japan has to trade when we quit supporting them by sending money through Korea and Indochina? They have to trade with Manchuria and China. They have to buy their raw materials and sell the stuff to them.

It does not matter who controls them; they are going to do that. I want you to remember what I said.

Mr. KNORR. There is a great deal of wisdom in that.

Senator MALONE. It is a necessity. We cannot support Japan any more than we can support England continually. We are paying the taxes of France, and they have no government.

Mr. KNORR. Nobody in his right mind should say that we can do this.

Senator MALONE. Why, of course. Now you are on one side or the other, either you want to divide the wealth of the United States——

Mr. KNORR. That is precisely what we came out against.

Senator MALONE. Help the so-called underdeveloped nations and mostly you are helping the areas of the raw material producing nations which are under the empire-minded nations and the colonial slavery nations, and we are giving them a choice in Indochina tonight of going Communist or being kept under colonial slavery with

France. All the people I saw when I was in Saigon in Indochina in 1948, I believe, understood colonial slavery and did not understand communism. However, they knew it could not be worse.

Mr. KNORR. It is a terrible problem.

Senator MALONE. So we are forcing it on them, and we are the ones who in 1776 broke away with the Boston Tea Party, from the very same thing.

I want to thank you very much for coming down here.

Mr. KNORR. Not at all.

Senator MALONE. Your testimony will be furnished you, and I hope that you will complete it in any respect you see fit, give us your real slant on things so we can understand it because frankly we have misunderstood your report. I have found an entirely different kind of man than I expected to see.

Mr. KNORR. Well, you see what they wanted us to do really, the Assembly, the majority was to propose a scheme that would force the United States to pay more for imported products than they are paying; that is what they were really after.

Senator MALONE. Of course. Just one paragraph is all that you need to say that. In other words, Uncle never wins, and whenever we go down economically, which is in the cards if we keep this up, Uncle has no Uncle. It is about time we started to look at the hole card.

Mr. KNORR. I would not go that far; I think this country has friends, can have friends.

Senator MALONE. Do you make friends by dividing your wealth?

Mr. KNORR. No, I do not say that. You would not make friends that way.

Senator MALONE. Why did you come to this country to start with, because you could not make a living in the old country. It has not changed.

Mr. KNORR. Most of them.

Senator MALONE. They have a very rich and a very poor. Over here we have been able to fix it so men like you and I can live and walk down the streets, go into the same restaurants and see the same shows, and nobody knows whether you have money or not. You know what would happen if you were to go back to the old system. You do not want to go back, and I do not want you to go back. Let us not sell that system to this country.

Mr. KNORR. I do not want to.

Senator MALONE. Inadvertently or any other way. If I were you, and this advice is probably worth just about what it costs, which is nothing, I would write a script of some kind saying what you have said in this hearing today, that you do not believe a thing that they put up to you, and you tried to defeat it and you thought you had, but you find it is being misunderstood by people that can read pretty well and normally have a reputation of understanding what they read.

Mr. KNORR. To tell you the truth, I did not even know what happened. I did not follow this thing any more, and only when Mr. Adlerman telephoned me a few days ago did I get hold of the resolution and saw what they had done.

Senator MALONE. You know now they did not follow your advice that you thought you had given them.

Mr. KNORR. I know.

Senator MALONE. I will say again what in my opinion they did do.

Mr. KNORR. I do not think any harm will come of it.

Senator MALONE. Not if we can prevent it, speaking for one Senator. I want to say to you they use men like you as a stepping stone and quote what is good for their purpose.

Mr. KNORR. People always quote you out of context, but even if the Economic and Social Council adopted this resolution against the vote of the United States, the United Kingdom, France, I think Norway and a few other countries, it would not make much difference because the Economic and Social Council has no power to make the United States do anything.

Senator MALONE. You saw what Mr. Paley said, that we are bound. Now finally we get so far away from the dog that bit us that we do not go back to find out the truth of it. We do not quote our books; we quote their own books. Did you hear that today?

Mr. KNORR. It happens.

Senator MALONE. In other words, I just come back to the one remark, many of them learn their economics from reading the books they write or the books their associates write without experience, and they begin to cite it as sound economics. In the engineering business we have an axiom or a basis for operation that nothing you can do with your computation will be any nearer accurate than your assumptions except by accident.

Mr. KNORR. I think there is a great deal of truth in that as far as economics goes. It depends on your premises.

Senator MALONE. If you work on a false foundation your building is apt to fall over even if the rest of it is perfect; that is what you have in this book today.

Mr. KNORR. While there is a lot of useless and false theory, good theory should never conflict with good common sense. It should be only refined common sense, and then it is very useful.

Senator MALONE. I have only been here as a Senator for 8 years. I was a State engineer when we built what is now Hoover Dam. I came here on the Central Valley project, and I was consulting engineer on that project. There is more education in Washington today and less common horse sense than in any place I have ever been. Is that of interest to you?

Mr. KNORR. It is an awfully large place.

Senator MALONE. It is; it is too large. What we should do is move the Government away from it a while.

Mr. KNORR. I do think, Senator, that sometimes Americans underestimate themselves. They feel that when they have dealings with foreigners they do not do very well. It certainly need not be true.

Senator MALONE. We had a great humorist, and his favorite saying was, "We never lose a war or win a conference."

Mr. KNORR. Let us keep it that way.

Senator MALONE. If we could get men like you to have the time to do work like this to keep us out of trouble rather than to get us into it, it would be worth while. I know now you did not intend to do it, but in reading your book I admit they had a foundation.

Mr. KNORR. If I would write a book on this, this would not be the book. It is a compromise where you do give a little here to get a little there.

Senator MALONE. In your own evidence you tried to defeat what they tried to do. In your own interpretation you did.

Mr. KNORR. In my own conscience I did not compromise on anything that was important.

Senator MALONE. It has been nice to talk with you.

(Whereupon, at 6:20 p. m., the subcommittee recessed subject to the call of the Chair.)

APPENDIXES

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APPENDIX 1

COMMODITY TRADE

AND

ECONOMIC DEVELOPMENT

Submitted by a Committee
appointed by the Secretary-General

UNITED NATIONS
DEPARTMENT OF ECONOMIC AFFAIRS
New York, 1953

SECRETARY-GENERAL'S PREFACE

This report on commodity trade and economic development was prepared by a group of five experts whom I appointed under General Assembly resolution 623 (VII) to consider the subject of that resolution and prepare practical proposals for consideration by the Economic and Social Council.

The report represents the unanimous view of its authors who acted in their personal capacities and whose recommendations are put forward on their own responsibility.

The group was composed of the following: Charles F. Carter, Professor of Applied Economics at The Queen's University, Belfast; Sumitro Djojohadikusumo, Professor of Economics, Djakarta School of Economics, University of Indonesia; J. Goudriaan, Professor of Business Economics at Pretoria University; Klaus Knorr, Associate Professor of Public and International Affairs, Woodrow Wilson School, Princeton University; and Francisco Garcia Olano, Director del Centro de Investigaciones de la Escuela Superior de Economía, Buenos Aires. At the invitation of the group, Professor Goudriaan acted as Chairman.

The group has emphasized in its report the great degree of mutuality of interest which exists in the matter of trade between the under-developed and the more developed countries. The report also reviews the wide spectrum of measures to be considered in dealing with the general problem of instability—whether from the monetary or the commodity viewpoint—a spectrum ranging from national measures dealing with a single commodity to internationally concerted policies over a broad field. The report can, I believe, contribute to harmonizing the views of governments on practical measures based on mutual interest. It will thus serve purposes essential for the success of the work of the United Nations.

On behalf of the United Nations I wish to express high appreciation to the members of the group for their contribution.

Dag HAMMARSKJOLD
Secretary-General

24 November 1953

LETTER OF TRANSMITTAL TO THE SECRETARY-GENERAL

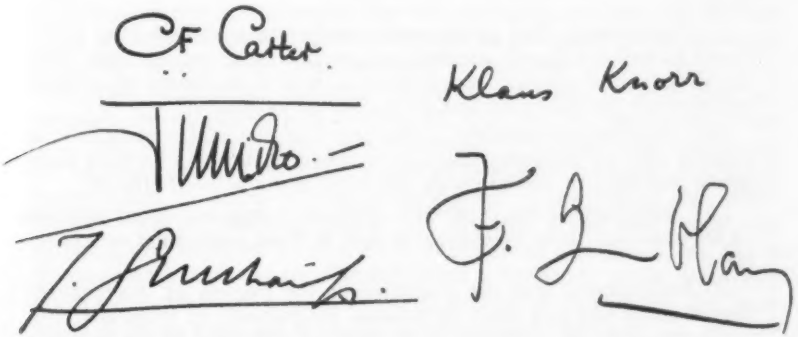
We have the honour to submit herewith our report, *Commodity Trade and Economic Development*. The report is the outcome of meetings held at the Headquarters of the United Nations, where we met throughout the eight weeks commencing 15 September 1953. At the request of the group, Professor J. Goudriaan served as Chairman of the Commitee.

We hope that we have broadly discharged the responsibilities given to us under General Assembly resolution 623 (VII). Our terms of reference contained in that resolution were already extremely wide, and they were subsequently added to by further requests. In our report, we have endeavoured to concentrate our attention and recommendations on those matters which we felt that the General Assembly considered most vital in passing the resolution.

We take this opportunity of expressing our indebtedness to the persons who have helped us in our deliberations by their advice. In particular, we should like to acknowledge the assistance we have received from Mr. Benjamin Graham, Professor A. G. Hart, Professor Julius Hirsch and Professor F. C. Mills.[1] We also had the benefit of discussions with members of the secretariat of the Food and Agriculture Organization and of the International Monetary Fund, as well as with staff members from various sections of the United Nations Secretariat. To all the persons concerned we wish to express our sincere thanks.

We want to acknowledge especially our gratitude to Dr. H. W. Singer, Secretary of our Committee, whose hard, tireless and efficient labour has been most helpful in our work.

Yours respectfully,



United Nations, New York
9 November 1953

[1] Professor Mills was kind enough to prepare a technical memorandum for the use of the Committee. This memorandum has been helpful to us in forming our own opinions, but Professor Mills is, of course, in no way to be held responsible for our conclusions.

PART I. THE PROBLEMS

Chapter 1

Terms of reference

Resolution 623 (VII) of the General Assembly

1. By resolution 623 (VII) of the General Assembly of the United Nations, adopted 21 December 1952, we were asked: "to prepare, during 1953, a report on such practical measures as it may be advisable to adopt pursuant to the recommendations contained in sub-paragraphs (*a*) and (*b*) of paragraph 1, and in paragraphs 2 and 3" of this resolution, which reads:

"The General Assembly . . .

1. *Recommends* to Member States that:

(*a*) Whenever governments adopt measures affecting the prices of primary commodities entering international trade, they should duly consider the effect of such measures on the terms of trade of countries in the process of development, in order to ensure that the prices of primary commodities are kept in an adequate, just and equitable relation to the prices of capital goods and other manufactured articles so as to permit the more satisfactory formation of domestic savings in the countries in the process of development and to facilitate the establishment of fair wage levels for the working populations of these countries with a view to reducing the existing disparity between their standards of living and those in the highly industrialized countries;

(*b*) Without prejudice to the recommendation contained in sub-paragraph (*a*) above, their governments should give serious consideration to all other aspects of the problem of undue fluctuations in the terms of trade . . .

2. *Recommends* that governments co-operate in establishing multilateral as well as bilateral international agreements or arrangements relating to individual primary commodities as well as to groups of primary commodities and manufactured goods, for the purpose of:

(*a*) Ensuring the stability of the prices of the said commodities in keeping with an adequate, just and equitable relationship between these prices and those of capital goods and other manufactured articles;

(*b*) Safeguarding the continuity of the economic and social progress of all countries, those producing as well as those consuming raw materials;

3. *Recommends* that the countries in the process of development should adopt and give effect to national programmes of integrated economic development conducive to the rational utilization of the proceeds of their primary activities, the absorption of their surplus active population and the improvement of their standards of living . . ."

2. Two important concepts are included in the resolution: the concept of stability and that of "fair", "just" and "equitable" prices. We define

"stability", not as fixity for all time, but as freedom from violent short-run fluctuations. We have no wish to give "stability" any meaning which implies the arrest of a desirable process of economic change. But the difficulty of discovering the meaning of, let alone of giving precision to, terms like "fairness", "equity" and "justice" as applied to prices and commercial transactions is well known, and this presented the Committee with a complex problem.

3. To obtain guidance, we first turned to the resolution, and to the records of the debates which took place before it was passed. In those debates, two groups of delegates were (it appears to us) following two very different lines of thought, which are at first sight irreconcilable.

4. The first group expressed a concept of "fairness" in international price relations, particularly in connexion with the interests of under-developed countries and the problems of financing their economic development. This is reflected in the phrase "to ensure that the prices of primary commodities are kept in an adequate, just and equitable relation to the prices of capital goods and other manufactured articles"; in the use of the term "fair and equitable international prices" in the summary title of the resolution; and also in the description of the purpose of fair prices "to permit the more satisfactory formation of domestic savings in the countries in the process of development and to facilitate the establishment of fair wage levels for the working populations of these countries with a view to reducing the existing disparity between their standards of living and those in the highly industrialized countries".

5. The second group of delegates showed their sympathy with the values that prompted the quest for standards of "fairness" and "equity", and they too wanted to live in a world in which everyone has the minimum wherewithal for a life of freedom, dignity and self-improvement. They recognized that abrupt fluctuations in the terms of trade are harmful not only to the countries adversely affected but also to the countries which derive temporary benefit from them. It would be desirable for all countries to collaborate in preparing measures calculated to reduce the amplitude and moderate the violence of such fluctuations. But they felt very strongly that there was no objective criterion for determining exactly what constituted an "adequate, just and equitable" relationship between the prices of primary products and the prices of manufactured goods. They insisted that under the influence of changing supply and demand, prices were constantly changing, and these served as a guide to producers and consumers. While it was true that one had the choice between a system of freely developing prices and a controlled economic system, experience showed that the regulation of prices made the economic structure more rigid and was not conducive to increased productivity. It might well be desirable to adopt measures to moderate the violence of price fluctuations, but excessive rigidity must be avoided. Flexibility and adaptability were essential characteristics of a developing economy.[1]

[1] See *Official Records of the General Assembly, Seventh Session*, Second Committee, Summary records of meetings 215 and 216.

6. Following prolonged discussion, and after careful examination of the issues involved, the Committee agrees that the maning of "fair", "just" and "equitable" prices and price relationships—as the terms are understood by Messrs. Olano and Sumitro [2]—is for all practical purposes the same as that of the term "reasonably stable" prices and price relationships preferred by Messrs. Carter, Goudriaan and Knorr. The Committee is agreed that a price can be called "fair", "just" and "equitable" as well as "reasonable" as long as it does not perform extreme upward and downward gyrations which are caused by abnormal and transient conditions or serve no useful economic purpose. Barring such extremes, variations around the long-run course of prices, required for effecting the most efficient allocation of productive resources in a changing world, are neither "unfair" nor "unreasonable". The Committee also agrees that these long-run price movements are "reasonably" approximated by long-run market prices so long as the latter are not seriously distorted by monopolistic and monopsonistic practices, government bargaining and coercion. Unless long-run market prices are "unreasonably" subject to such distortions, the Committee agrees that it is preferable not to interfere directly.

7. Given this concept of "fair" or "reasonable" prices, the Committee agrees on the following statement of its approach to the problem:

(*a*) The capacity of economically under-developed countries for making economic progress is affected by the prices they receive for primary products and by the relation between these prices and the prices of the manufactured goods and services which they buy abroad.

(*b*) A greater measure of stability in these prices and price relationships will facilitate the steady economic development of these countries and, among other things, improve their ability to estimate their real importing capacity per unit of exports.

(*c*) "Reasonable" export prices and terms of trade of these countries must obviously enable them to obtain in the longer run in their export sectors higher income returns for the productive resources employed than these resources would yield if employed in their domestic sectors of production. This is mere common sense for any country, for otherwise it would pay to transfer resources engaged in the export industries to domestic production.

(*d*) As explained in chapter 3, paragraph 81, it is a plausible hypothesis that the bargaining strength of the under-developed countries is in general inferior to that of the wealthy industrial countries, and that this difference is of some importance to the extent that prices are affected by intergovernmental bargaining.

8. The Committee does not deny that governments may agree on operational definitions of what "fair" or "reasonable" prices should be. Yet to

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[2] This interpretation is based on (i) the meaning usually attached to these words by the economists who use them correctly; (ii) their personal studies on the subject of economic development of under-developed countries; and (iii) the consideration of definitions of "fair" and "just" prices proposed in numerous international conferences, especially inter-American conferences.

advance such definitions is not a matter of *expertise* and hence not within the province of experts. It must rather be based on a set of values which governments share and—to the extent that they disagree—on their relative bargaining power. The beginnings of such a consensus do no doubt exist, for extremely low or high prices might well be considered "unfair" by most governments. Yet the extent of this consensus depends on the actual circumstances of the time; it must be found by governments in the process of bargaining.

9. Finally, the Committee finds it necessary to draw attention to another aspect of the problem. Whatever is agreed upon, in the present or future, for the definition of "fair" or "reasonable" prices, governments have a choice when it comes to acting upon this common set of values. Governments must then decide whether to use the price system primarily to encourage a better allocation of resources, or to achieve a better distribution of income or to impose on it both burdens at the same time. We believe it to be preferable in general that prices should be left free to perform their function of allocating productive resources and that "unfairness" should be compensated by direct income transfers.[8]

Resolution 462 (XV) of the Economic and Social Council

10. In resolution 462 (XV) on procedure for the convening of study groups and international commodity conferences, the Council recommends, in paragraph 5, "that the group of experts appointed under General Assembly resolution 623 (VII) should devote attention to the question of the use of study groups and international commodity conferences". Paragraph 177 in chapter 5 of our report bears on this matter.

Report of the Committee on Commodity Problems of the Food and Agriculture Organization of the United Nations

11. In resolution No. 2, "Study of inter-governmental commodity policies and arrangements", the Committee on Commodity Problems recommended "that the Director-General transmit part I of CCP 53/16 to the Secretary-General of the United Nations for the attention of the group of experts to be appointed under paragraph 6 of resolution 623 (VII) of the seventh session of the General Assembly of the United Nations" (CL 17/20). The document referred to is a paper prepared for the Food and Agriculture Organization on "Inter-governmental Policies and Arrangements for Agricultural Products". We have found it most valuable, and appreciate the kindness of the Food and Agriculture Organization in bringing it to our notice.

Resolution 46 (V) of the Economic Commission for Latin America

12. Paragraph 4 (*c*) of resolution 46 (V) on terms of trade, adopted on 25 April 1953 during the fifth session of the Economic Commission for Latin America, "requests the Secretariat . . . to collaborate with other competent international bodies and, through the Secretary-General of the

[8] For some examples of compensatory payments see chapter 7.

United Nations, to make available to the group of experts to be appointed under General Assembly resolution 623 (VII) the findings of such studies as it has made or may make in the future". As a consequence of this resolution various documents have been brought to the attention of the Committee, which has studied them carefully; we appreciate the action of the Economic Commission for Latin America in making them available.

Draft resolution E/L-.497

13. This resolution, referred to the Committee's attention by the Economic and Social Council at its fifteenth session, has been considered in a separate document which we have submitted to the Secretary-General of the United Nations.

Chapter 2

Factual background

14. The facts which explain the Committee's appointment, and the seriousness of the problems with which it has had to deal, may be summarized in a series of statements:

(*a*) The prices of many primary commodities entering into international trade have been for many years, and continue to be, subject to violent short-term changes.

(*b*) The money proceeds realized from primary production, whether considered as the incomes of individual producers or as the foreign exchange earnings of producing countries, have on the whole been even more variable.

(*c*) The prices of manufactured goods (including capital goods) in international trade have also shown considerable individual variability, though they have more stability taken as a group than primary commodities. But the size, direction and timing of the changes in the prices of manufactured goods have been such as to leave considerable variation in the real income of primary producers, and in the real capacity of primary producing countries to buy manufactures with their current export proceeds.

(*d*) The obverse of this last statement is that there have been considerable short-term variations in the real capacity of manufacturing countries to buy primary products with their current export proceeds. But the variations tend to be especially serious for primary producing countries, because some are highly specialized in their exports on one or a few products; some have a high ratio of foreign trade to national income; inflationary (or deflationary) pressures within a primary producing country tend to be synchronized with those coming through foreign trade, whereas industrial countries have to meet these pressures at different times.

(*e*) Capital development in under-developed countries depends heavily on current export proceeds for its finance, and a large part of such proceeds is required to finance imports of essential consumer goods. The variations of trade thus have a violent effect on the margin available to finance imports of capital goods.

(*f*) In addition to the short-term variations, there are at times substantial secular changes in the relation of the prices of manufactures to the prices of primary products. Estimates of these secular changes are difficult, and the results obtained need further study. We think that in any case they offer no conclusive evidence of what may happen in the future.

(*g*) Although we follow usual practice in writing of "primary producing" and "manufacturing" countries, it is to be noted that all countries produce both primary and manufactured goods; many have significant exports of both, and many have significant imports of both. The balances

of national advantage cannot therefore be explained by a simple division between advanced manufacturing countries and under-developed primary producers. A country such as the United States has an interest in high prices for some primary products and low prices for others. Furthermore, even such a country as the United Kingdom, with few primary exports and therefore with a direct interest in low prices for primary products, also has an interest in high and stable incomes in countries which form a major market for its exports or which are joined with it in the sterling area.

15. We will now set out some facts which illustrate these statements, though we would warn the reader that there are difficult statistical problems in the field, and the figures must not be regarded as exact.

Violent short-term price fluctuations

16. The United Nations study, *Instability in Export Markets of Under-Developed Countries*,[1] contains an analysis of the fluctuations in United States import prices for primary products. The import unit values for a large number of commodities and for countries of origin were computed for each year from 1949 back to 1922, or as far as comparable statistics existed. The year-to-year variations (computed as a percentage of the higher yearly figure) were found and averaged, over the period, for each commodity from each country. Of 218 averages so obtained, only eighteen were below 10 per cent; 143 were in the range 10 to 19.9 per cent, fifty in the range 20 to 29.9 per cent, and seven were 30 per cent and upwards. The picture is not significantly changed by excluding the war and post-war years.

17. These figures mean that, on an average for the period, most commodities could be expected to be from 10 per cent to 20 per cent dearer or cheaper in one year than in the next. The corresponding variation of the United States consumer price index is only 4 per cent. If we look at fluctuations taking place within individual years, their violence becomes even more apparent; for a selection of eleven commodities, the variation between the yearly high and low points of market prices averaged 27 per cent during the half-century from 1901 to 1950; for fifteen commodities, this variation averaged 32 per cent from 1920 to 1939. If we finally look at the day-to-day movements of a specific commodity in a particular market, where no averaging of fluctuations occurs, even more violent changes can be seen. Thus, the price of rubber in the London market quadrupled during 1950; wool prices were multiplied by three and then fell back to their original level, within a period of eighteen months.

Violent fluctuations in money proceeds

18. The study referred to above also analyses the variations in the money proceeds obtained by countries in their trade with the United States. In practically every case, the variation in proceeds was greater than that in price, 40 per cent being a typical year-to-year change.[2] In other words, the fluctu-

[1] 1952.II.A.1.

[2] It must be noted, however, that some "variation" in export proceeds is merely the result of a steady growth in volume.

ations in volume have not run counter to those of price, but have powerfully reinforced the fluctuations in price.

19. This illustration relates to trade with the United States, and indicates how violent and damaging the variations in earnings of an important currency can be. But the same picture emerges if we look at the variations in aggregate export earnings in all the major markets. For eighteen major commodities, over the half-century from 1901 to 1950, the average year-to-year variation in export proceeds was estimated at 23 per cent. A figure such as this is already reduced because of averaging among different grades of commodities, different exporters and different markets; there can be no doubt that it is a conservative estimate of the instability often experienced by particular exporters of individual products. As with prices, the most recent and striking examples are furnished by the Korean crisis and its aftermath; but the examples in the figures below show some marked changes even in the preceding years. (The Australian figure for 1950 is for the year ending before the Korean crisis; while a large rise in rubber prices also preceded the war). The following indices of export value in national currencies are based on 1948 = 100.[8]

Year	*Australian wool* [a]	*Argentine wheat* [b]	*Malayan rubber* [b]
1948	100	100	100
1949	156	61	83
1950	211	55	280
1951	426	73	453
1952	217	2	216

[a] Years ending 30 June.
[b] Calendar years.

In the absence of internal stabilization schemes, the incomes of individual primary producers can also be expected to show wide variations.

Real proceeds also variable

20. As noted in paragraph 32 below, much of the primary production of the world is exchanged in international trade for other primary products. In so far as it is exchanged for manufactured goods, the violent money variations in proceeds tend to be reflected in the volume of manufactures obtainable in exchange; for the prices of manufactures, taken as a group, are much more stable. Thus the average year-to-year variation in the unit value of United States exports of finished manufactures was, for the inter-war period, 6.4 per cent—less than half of the average variation for a group of major primary commodities. Furthermore, the price movements for the two classes of goods are not exactly synchronized, so that the 23 per cent year-to-year variation in export proceeds, mentioned in the preceding paragraph, is 22 per cent when deflated by the unit value index of United Kingdom manufactured exports (converted to a dollar basis).

[8] Compiled by the Statistical Office of the United Nations.

21. One may, however, obtain a false impression by thinking of manufactures as a group. In economically developed countries the manufacturers of consumer goods (particularly branded articles) often pursue a policy of price stability, but semi-manufactures tend to follow, on a reduced scale, the price fluctuations of the raw materials from which they are made. Capital goods—especially the "heavy" types whose installation can be postponed —are liable to very great fluctuations in demand, and may thus show serious price instability. In recent years, the backlog of orders for capital goods has usually been enough to even out these fluctuations, but there is no reason to think that instability will not reappear in the future.

22. Some of this diversity of price movement is illustrated in the United Nations study, "Relative Prices of Primary Products and Manufactures in International Trade" (E/2455, 1953). This shows, for instance, that among United States exports the unit value of copper products fell by 17 per cent between 1948 and the fourth quarter of 1949, and then almost doubled by early 1952. Clothing fell fully 17 per cent between 1948 and 1949, while passenger cars rose 15 per cent. An analysis which we have made of Indian imports shows that the unit value of caustic soda fell by over 40 per cent between 1948/49 and 1949/50, and that of tin plate was 70 per cent higher in 1951/52 than two years before. The "fine structure" of the trade in manufactures of a particular country shows many such sharp variations.

23. Changes in real value therefore need careful analysis. If we are thinking of the buying power of the incomes of primary producers, then we must remember that the cost of living, except in times of violent inflation, responds only in part, and sluggishly, to changes in import prices. Variations in money incomes thus produce variations in real incomes, which may (by bad luck) be even more violent. If we are thinking of the buying power of a country's foreign exchange earnings over its imports, then the fact that manufactured imports are often varied in type and origin leads to some averaging of their fluctuations; the "real" buying power of the country, therefore, will again vary mainly with its money earnings. But if we are thinking of the margin of foreign exchange income available to finance a development programme, then we must note a double variability. The margin itself is the difference between export earnings and the cost of "essential" consumer good imports, and is normally more variable than either of these components; its use may be concentrated on a few major projects, involving, for example, mainly transportation equipment or mainly electrical machinery, whose prices may well vary substantially and in a way quite different from that for the country's exports. It is this fact which has led to an interest in under-developed countries in stabilizing the world prices of major manufactures as well as of primary products.

Fluctuations especially serious for primary producing countries

24. Fluctuations in proceeds from particular exports are more serious if the country concerned cannot rely on an averaging of the price movements of many different types of goods. It is well known that many of the primary producing countries suffer from their specialization on the export

of one or of a few products; for instance, Cuba on sugar, Malaya on tin and rubber, Venezuela on petroleum, Northern Rhodesia on copper. Of the fifty-six countries whose trade is reported in the International Monetary Fund's monthly, *International Financial Statistics*, there were seven in which two commodities made up over 90 per cent of total exports in 1952, and no fewer than thirty-two countries in which two commodities made up over 50 per cent of total exports.

25. A high degree of specialization is often a result of small "economic size", and is accompanied by a high degree of dependence on foreign trade, so that fluctuations in export proceeds have a devastating effect on the domestic economy. Thus, a table of the ratios of foreign trade (exports plus imports) to the flow of available resources (gross domestic product [4] plus imports) shows, for the most recent available year: Southern Rhodesia 68 per cent, Belgian Congo 57 per cent, Ceylon 55 per cent, Burma 38 per cent, Dominican Republic 36 per cent, Peru 34 per cent, Egypt 33 per cent. Even higher figures may occur in the case of some countries for which statistics are not yet available. In comparison, the ratio for the United States is 7 per cent, for the United Kingdom 33 per cent and for Belgium 41 per cent.

26. There is also an important technical reason for the severity of the difficulties produced in primary producing countries by instability in prices. Economically developed manufacturing countries tend to have a more favourable balance of payments in depression and a less favourable one in boom years; primary producers have the opposite pattern. Thus for the manufacturing countries internal and external problems alternate; for the primary producers they arrive at the same time. This fact is clearly shown by the following figures giving the changes in the balance of visible trade [5] (in millions of United States dollars): [6]

Period	*Developed manufacturing countries*[a]	*Under-developed primary producers*[b]
1929 (boom) to 1932 (slump)	+2,232	— 164
1937 to 1938	+1,117	— 685
1951 compared with 1949	+2,702	—3,126
1951 compared with 1952[c] ..	+1,911	—3,224

[a] Canada, the United States, western Europe.

[b] Latin America, exclusive of Argentina; Africa; and Asia, excluding Japan.

[c] Though not a recession year, 1952 is included to show the recent direction of movement.

VARIATIONS IN EXPORT PROCEEDS SERIOUSLY AFFECT THE FINANCE OF CAPITAL DEVELOPMENT

27. There is sometimes an impression in developed countries that they, through their lending, are the main source of finance for new development of under-developed areas. This may have been true in the past, and we

[4] Taken from national estimates.

[5] Excluding gold.

[6] Computed by the Statistical Office of the United Nations.

hope that it will be increasingly true in the future; but it has not been true of post-war years. The evidence presented for this period in *Instability in Export Markets of Under-Developed Countries* (pages 67 to 72), supplemented by our own inquiries, has shown that long-term capital movements, where they have been inwards, have usually been small relative to total export proceeds, and have been largely offset by transfers for debt service. There is evidence of a movement of domestically owned funds from under-developed countries seeking a safer and more profitable haven in developed countries; measures to prevent such movements have not been fully effective.

28. Capital flows are thus to be regarded as at least an uncertain source of finance for development. But a large part of export proceeds is required to finance imports of essential consumer goods. The proportion so reserved depends on the definition of "essential", that is, on the degree to which consumer demand can be constricted; and there is, of course, no doubt that it is difficult for an under-developed country to prevent some flow of non-essential and luxury imports in good times. Investigation of the trade of two important under-developed countries in 1948 (chosen as a representative year before Korean hostilities) discloses that 55 per cent of the imports of one and 70 per cent of the imports of the other were plainly essential consumer goods; between 10 per cent and 20 per cent were apparently non-essential, or of doubtful classification; while capital goods accounted for 35 per cent and 12 per cent, respectively.

29. We think that these figures may be taken as fairly typical. If we suppose that in an under-developed country 60 per cent of export proceeds are required to finance essential imports of consumer goods then a 20 per cent fall in those proceeds (other prices remaining constant) will halve the amount available for other imports, including capital goods. The instability of the balance of trade of some of the poorer countries thus means that, in the absence of large foreign exchange reserves, they are in no position to plan a continuing development programme involving imports.

Long-term changes in the terms of trade

30. Two United Nations studies bear on this matter: *Relative Prices of Exports and Imports of Under-Developed Countries* (1949.II.B.3) and "Relative Prices of Primary Products and Manufactures in International Trade" (E/2455, 1953). Both use United States and United Kingdom trade statistics as their primary source of information. Much interest has been aroused by the statement in the earlier of these publications that, on the eve of the Second World War, a given quantity of primary exports would pay on the average for only 60 per cent of the quantity of manufactured goods which it could buy in the eighteen-seventies. We have examined the evidence on movements of the terms of trade since 1800, and in consequence we conclude that this single figure is in danger of being over-stressed. As pointed out in the appendix to the 1949 study, there are grave statistical difficulties in measuring change in the terms of trade over a long period, notably because of improvements in quality which are not reflected in trade returns; and there are large and unexplained differ-

ences in the movements of the terms of trade between manufactures and primary products in different countries.

31. The facts which are beyond doubt are that the secular movements in the terms of trade are substantial; and that the movement was in favour of manufacturing countries from the nineteen-twenties to the nineteen-thirties, and has been unfavourable, at least to some manufacturing countries, in recent years. Some observers have interpreted the evidence of a longer period as showing a general tendency for the terms of trade to move against primary production, occasionally interrupted by medium-term rises. Others have seen evidence of a long cyclical movement, in which the present would be a phase favourable to primary producers. We see no adequate ground for discriminating between these (and other) theories, and we conclude that the evidence of the past offers no help in predicting the future secular movements of the terms of trade.

Many countries have mixed interests

32. Primary producers are often also large consumers of primary products; while some of the largest manufacturing countries (such as the United States and Canada) are, in addition, among the largest exporters of primary products. Thus, in 1952 the United States and western Europe had exports of $US 42 billion, of which $12 billion consisted of primary products, and nearly $4 billion represented exports of primary products to primary producing countries. On the other hand, out of imports of $43 billion, these manufacturing countries spent over $14 billion on manufactures, of which nearly $3.5 billion came from primary producing countries. The United States is a major exporter of cereals, tobacco, cotton and, at times, coal and petroleum, and primary products account for about 25 per cent of its export trade. Even the United Kingdom, though its export trade is now largely concentrated on manufactures, has an import trade which is by no means specialized on primary products. It is also very interested in the earnings of the whole sterling area, which is a major exporter of primary commodities. Then there are countries in process of development which look to a future in which their exports and imports will be a balanced mixture of both primary and manufactured goods. Therefore, although we have followed custom in writing of "primary producing" and "manufacturing" countries, the balance of interest for a particular country may be not at all easy to determine.

The future prospects

33. We have no special qualifications for foreseeing the future, but there are three premises which we have adopted, in order to clear our own minds about what is needed, and which we now state:

(*a*) There is no reason to think that the instability of commodity prices will disappear of itself. In other words, we reject the view that fluctuations since 1929 have been due to special causes—the great depression, the war and its aftermath, Korean hostilities—which are never likely to recur, and, in the absence of which, stability would be easily and naturally achieved.

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The influence of the special causes is, of course, beyond doubt; but we regard the commodity markets of the world as liable to show similar instability in the future when disturbed by such economic shocks as may reasonably be expected. In fact, the unco-ordinated actions of governments in attempting to mitigate the effects of instability may well increase it.

(*b*) We have no way of predicting the future state of trade, the rate of economic expansion or the policies of governments; therefore we cannot know whether the secular terms of trade will shift to the advantage of either primary producers or the producers of manufactures, or remain roughly the same as, on the average, they have been during the post-war period. We reject both the extreme views on this matter—that the terms of trade of primary producers will certainly improve, because of the pressure of human needs on limited resources; and that they will certainly worsen, because forces which make for "over-production" are inherent in the nature of the primary industries. In line with this agnostic attitude, we regard it as necessary, above all, that the measures we propose should have a flexible response to changing economic circumstances.

(*c*) We do not think, however, that substantial secular changes in the barter terms of trade between primary products and manufactured goods, in whichever direction, may not occur; or that, if they occur, this would be a matter of indifference to international policy for moderating the short-term instability of commodity markets. If the secular change is adverse to primary producers, governments should stress stabilization devices that will tend to hasten the transfer of productive resources from primary production to manufacturing and service. On the other hand, if it should turn out that secular shifts in the terms of trade favour primary producers, governments should, whenever a choice exists, emphasize those stabilization measures that will least discourage, or most encourage, an expansion of primary production, and preferably an expansion in areas with lowest costs. In this event the industrial countries will have a special and essential interest in international stabilization measures, for it is recognized that extreme fluctuations in the markets for primary products are an important factor in retarding an expansion of their production when such expansion is needed.

Chapter 3

Main problems

34. That primary commodity markets are highly unstable is generally known, and in the preceding chapter we have presented some telling evidence to this effect. We cannot, however, jump immediately from the recognition of instability to remedial proposals. In order to establish the case for remedial measures and to give them appropriate properties, we must identify the ill consequences of instability and choose a course of action which promises to remove or mitigate these consequences without, in turn, entailing highly undesirable repercussions. The remedy must be better than the evil it is designed to combat. For this reason, we have thought it necessary to analyse the problems confronting us as far as the space of this report, and our limited time, allow.

Commodity instability and economic growth

35. General Assembly resolution 623 (VII) directed us specifically to pay attention to the effects of severe fluctuations in primary commodity markets on the economic development of those producing countries which are as yet economically under-developed. In chapter 2, we noted several reasons why these effects are adverse to the economic progress of these countries. In so far as investment requires goods from the outside world, that progress must depend entirely on current export earnings unless there is a net inflow of foreign capital. It is to be hoped that international capital transfers will contribute substantially to the economic development of the poorer primary producing countries. In the past, however, such a net inflow of capital has not been large for the economically under-developed countries as a group, and this fact has forced them to rely on the use of part of their export proceeds to finance development. For reasons indicated in chapter 2, the extreme fluctuations in primary product markets render these export earnings especially variable in the primary producing countries. Indeed, the variations are often magnified in their effect on the availability of foreign exchange in so far as the import of essential consumer goods is a first charge on export earnings (paragraph 28).

36. To the extent that economically under-developed countries have in the past been able to utilize capital inflows for purposes of investment, this advantage has been reduced because the capital inflow has also been highly variable, and this variability, moreover, has coincided roughly with the fluctuations in export earnings. Net capital imports have tended to dry up in a depression, when export proceeds slump severely, and the requirement of servicing past loans has been another charge on greatly shrunken export earnings. In chapter 7 we make proposals for assuring a steadier flow of international lending.

37. Apart from these direct effects on the availability of foreign exchange and other resources, under-developed countries are for other reasons par-

ticularly vulnerable to the violent short-term instability of primary commodity markets, and the disturbances diminish their capacity for stable economic growth. It is a notorious fact that boom conditions in primary product markets tend to induce powerful inflationary pressures in the economies of these countries. Among other consequences, such inflationary pressures tend to expand imports of consumer goods, not rarely of the luxury type, and to encourage investment that contributes little or nothing to economic progress, and that, in any event, is based on a structure of demand distorted by inflation. Even when investment projects are undertaken that deserve the highest priority if economic growth is to be advanced, they are often initiated on a scale which cannot be sustained when boom conditions collapse and give way to depressed export markets.

38. Paradoxically, under-developed countries often also experience inflation when foreign demand for their exports is in severe decline. Government revenues depend mainly on indirect taxes, including export taxes. They grow as export proceeds rise. Frequently, this leads to an expansion in public expenditures based on the assumption that the gains will be maintained. When a reversal takes place and public revenue drops abruptly, it is difficult—for political, social and even technical reasons—to pare expenditures accordingly. The ensuing budget deficit cannot be averted by the borrowing of genuine savings; instead, new money is created, usually through advances by the central bank. Thus we find budget deficits which have nothing to do with deliberate "deficit spending".

39. This peculiar vulnerability of under-developed countries arises in part, of course, because the administrative resources of these countries are generally not adequate for the pursuit of effective compensatory measures. The public, furthermore, understands even less than in the economically developed countries how the demands and practices of special interest groups are apt to undermine domestic stability; and is less prepared, therefore, to submit selfish group behaviour to a measure of discipline, and to demand with sufficient vigour that governments develop the administrative capacity essential to domestic compensatory action.

40. To develop the capacity for compensatory action over the alternation of boom and slump is primarily the responsibility of the under-developed countries themselves, and in chapter 8 we make some specific suggestions in this direction. However, it must be realized that this capacity is now inadequate largely because these countries *are* economically under-developed. A growth of this capacity is both a prerequisite and a fruit of economic development.

41. The special vulnerability of under-developed countries to fluctuations in primary commodity markets is a consequence of their economic backwardness in still another sense. A country of small farmers with a minor and struggling industrial sector cannot easily adapt its pattern of production to sharp downward fluctuations in export proceeds by shifting resources from the production of exports to meet home market demands, or by substituting home production for imports. The diversity of its resources is too limited to permit rapid and broad adaptation. Similarly, when infla-

tionary pressures are rising—whether in a period of booming or of slumping export markets—the newly created money is relatively ineffective in stimulating new production. There is always some shortage of "co-operating factors" that either must be imported from abroad (such as capital equipment, which the country may be unable to afford when export earnings have fallen) or can only be developed gradually at home (such as skills).

42. To the extent, finally, that economic growth requires public planning, violent and unpredictable fluctuations in export markets act as a major handicap, if only because such planning depends on rough forecasts of the availability of foreign exchange.

43. We recognize that it is possible to exaggerate the special vulnerability of under-developed countries to violent short-term fluctuations in primary commodity markets. Highly industrialized countries that are crucially dependent on foreign supplies of foodstuffs and raw materials, that do not dispose of lavish reserves of international liquidity, and whose flexibility of resource allocation is also limited, may likewise suffer severely from sudden wide swings in the prices of primary products. On the other hand, under-developed countries often have a large amount of "subsistence production" so that a sizable block of national income is little affected by the fluctuations in world markets (though it may be grievously affected by the weather). But it must be remembered that it is precisely those sectors of their economy upon which the drive towards economic progress most depends which are vulnerable to the shock of external and internal instability.

44. Secular changes in the price relationship between primary products and manufactures also have an obvious bearing on the capacity of economically under-developed countries to press ahead with their development. In principle, deteriorating terms of trade act as an incentive to shift resources to other than primary production. But, for reasons stated in paragraph 41, these countries are not very responsive to this stimulus. Moreover, worsening terms of trade mean a loss of real income and hence tend to diminish productive resources available for new capital formation.

45. Conversely, when the terms of trade improve for primary producers, the under-developed countries experience a rise in real income and thus have more resources potentially available for capital investment. In this respect, an increase in export earnings arising from better prices for primary goods is equivalent to the receipt of grants and loans from the outside world; and, in comparison with the latter, has the further advantage of not requiring future resources for the servicing of loans. It must be realized, however, that an increase in export proceeds induced by improved terms of trade is only potentially, and by no means automatically, available as a source of finance for economic development. The increment in export earnings expands money income; and—unlike foreign grants and loans received by government or investors—this extra income can produce new investment solely to the extent that it results in private or public saving. If it is not saved, expenditures on foreign and domestic consumer goods will rise, and (because of the conditions identified in paragraph 41) a rising expenditure

on domestic consumer goods is more likely to cause prices to rise than to call forth extra production.

The economic interdependence of nations

46. The policy measures with which we are chiefly, though not exclusively, concerned are international measures. Obviously, international measures are feasible only to the extent that nations have and perceive common interests which are best served by joint action. All reasonable men think, or at least say, that—in the economic sphere among others—the community of nations is highly interdependent in its quest for prosperity. This does not mean that the prosperity of our neighbour is the only and indispensable condition of our own prosperity. There are many determinants of national prosperity, and there are circumstances under which our neighbour's prosperity is at the expense of our own. But granting these qualifications, it is very likely that a country will be better off if the world as a whole is prospering; and, conversely, economic stagnation and distress in one part of the world have many ways of spreading elsewhere. Leaving this level of generality, we deem it useful to emphasize, at least by way of selected examples, the common interest all countries have, and would do well to recognize, in moderating excessive fluctuations in primary commodity markets.

47. In paragraphs 36 to 42 we have stated some of the most obvious ways in which this market instability is especially harmful to primary producing countries that are retarded in their economic development. The particular vulnerability and misfortune of these countries are not only theirs to regret and to put up with as best they can. We prefer to think that the many solemn declarations by official and unofficial spokesmen of the industrial countries, voicing their concern with the development of economically backward countries, were prompted by a measure of sincerity. We also believe that there are specific reasons for which the industrial countries might feel inclined to join the primary producing countries in moderating violent fluctuations in primary commodity markets.

48. As pointed out in paragraph 43, industrial countries which are vitally dependent on imports of primary products may face serious difficulties when primary commodity prices take a sudden and substantial upward turn in relation to the prices of manufactures. Nor are they likely to secure full income benefits from a sudden and substantial plunge in the prices of primary products. Changes in the terms of trade must always be appraised in relation to accompanying changes in the volume of trade. If a fall in primary commodity prices means that the exports to economically under-developed countries decline, then the advantage of lower import prices may well be offset by unemployment in the export industries of the industrial countries. This will happen unless the economically developed countries have a high capacity for shifting resources quickly from export to home industries. It may be that most industrial countries possess this resilience in resource allocation in the face of slow secular changes in the terms of trade. Yet this is hardly the case when the favourable shift in the terms of trade is abrupt and massive (unless that shift reverses a pre-

vious, and equally sudden and short-lived, deterioration of the terms of trade), especially since such movements are usually associated with a general recession of business activity in the industrial countries.

49. There are additional reasons why—in the face of sharply changing relations between the prices of primary and of manufactured goods—the interests of industrial and primary producing countries are not nearly as much opposed as is sometimes assumed. As a group, the under-developed countries are also importers of primary products and exporters of manufactures and, as economic growth continues, this diversification of exports and imports will increase. The economically developed countries, on the other hand, account also for the bulk of the world's primary production. As a group, the industrial countries export large quantities of primary commodities, or are politically or financially affiliated with areas which depend on such exports. Furthermore, when the prices of manufactured articles fall abruptly in relation to the prices of primary goods, the capacity of the industrial countries to assist and lend to the economically under-developed countries tends to decrease; and sharply slumping prices of primary commodities must diminish the profitability of investments by industrial countries in primary producing countries.

50. Finally, it should be a matter of concern to the industrial countries that the extreme instability of primary commodity markets causes primary production to be wasteful or to expand only slowly when underlying conditions of supply and demand call for rapid expansion. When primary producers are afflicted with violent short-term slumps in their incomes they are frequently unable to maintain their production capacity properly, and they are still less able to undertake the improvements upon which expanded output and increased productivity must depend. In the field of mineral production, temporarily depressed prices often result in production cutbacks, although the quantities not produced may be needed when boom conditions suddenly supersede the fall in demand. This is particularly serious whenever there is a long-run increase in the world's requirements for primary products. Moreover, violent market instability acts even in boom times as a deterrent to new investment in primary production.

51. To sum up, we have no doubt that industrial as well as economically under-developed countries would be better off—in terms of real income and its balanced growth—if the gross instability in primary commodity markets were moderated. It remains for all countries to recognize and fully appreciate this coincidence of interest. If they do, the basis for joint action is established and the problem becomes one of choosing the proper means.

The behaviour of prices

52. In the preceding paragraphs of this chapter, we have shown the connexion between commodity trade and economic development in under-developed countries; and we have drawn attention to the common interest of all countries in a solution of the problem of instability. We must now analyse this problem further, beginning with a brief and necessarily superficial treatment of the behaviour of different kinds of prices.

53. Prices are naturally regarded as unstable if they show discontinuities in behaviour—sudden jumps from day to day or from week to week. Clearly, however, there is a continuous progression from prices which show violent jumps up and down to those which move by little jumps, mostly in the same direction, and which appear to be following a smooth trend line. The idea of "excessive instability" seems on analysis to have two parts: (*a*) the changes in the direction of price movements are frequent, and (*b*) the amplitude of fluctuations is large.

54. The standard by which we judge whether the changes are "frequent" and the amplitude "large" is provided in part by the behaviour of other prices; thus (as we have seen in chapter 2) primary commodity prices are highly unstable when judged against the standard of domestic retail prices, or the prices of manufactured exports as a whole. But a certain subjective standard is also provided by the fact that a large part of production and consumption, particularly of basic commodities, can be expected to show the stability and continuity of growth of uncorrelated mass phenomena. In other words, such magnitudes as productivity and population usually show gradual and continuous changes; the variations in harvests, though serious for particular countries, are not often large for the world as a whole; consumption, in so far as it is a function of income, moves only slowly from year to year. It is possible to surmise, therefore, that the desirable results of price changes—the encouragement of a better allocation of economic resources—ought to be capable of achievement without violent instability. Indeed, if prices really had to change by 15 per cent or 20 per cent from year to year in order to achieve minor alterations in resource allocation, this would raise serious doubt about the effectiveness of this method of securing a desirable allocation. In any case, we do not believe that the large price fluctuations are in fact serving useful allocative purposes.

55. There is, however, no mystery about the occurrence of these larger movements of prices; they can be caused by changes in stocks (inventories). A small fall in the demand for finished goods may produce, for a period, an almost total cessation in purchases of raw materials, as manufacturers run their stocks down to a level appropriate to their new level of production. Supply and demand in a market can show all sorts of capricious changes that have little or nothing to do with underlying continuous changes in production and consumption. The greater the instability, the easier it is to move the commodity into and out of stock, and the more difficult it is to adjust production to a new level of prices.

56. Furthermore, the influence of expectation is liable to produce "perverse" changes in prices. When prices are falling, sellers, far from withdrawing from the market, may rush to sell before the price falls further—thus creating a movement which justifies their own fears. The same is true, in reverse, on a rise. The equilibrium of prices may in the short run be unstable in the sense defined in mechanics—an equilibrium of such a character that an initial disturbance produces forces which cause a further displacement from the original position.

57. The influences causing instability operate with special severity in certain sections of the capital goods market. Although industry may regularly set aside depreciation funds to provide for the replacement of its equipment, there is usually a choice of the time at which such replacement takes place; and the same choice occurs when net additions to capital stock are made. Thus, when prices are falling and are believed likely to fall further, the orders for heavy capital goods may diminish almost to vanishing point, since it is relatively easy to postpone orders. The desire of manufacturers to get any order which will contribute towards their heavy fixed costs causes considerable price cutting in hard times. In good times, the production capacity of the industry may be reached, and this can only be expanded slowly; orders for "machines to make machines" are themselves part of the pressure on the capacity of the machine making industries. A rush of orders, impinging on an inflexible supply, may produce considerable price increases.

58. We can now identify two classes of goods liable to show instability: storable primary commodities (cereals, fibres, metals, coal, oil, sugar, tobacco, rubber, etc.), which tend to show instability in price although changes in production and final consumption may be gradual and almost continuous; and certain capital goods (such as ships, locomotives, heavy plant and machinery), which may show marked instability in both price and volume. Other classes of goods—intermediate and finished consumer goods, buildings, etc.—are of course affected to some extent by instability in raw material costs. But we can, at least in the developed countries, distinguish a large and important section which shows considerable price stability. These are the "branded" goods (canned and packaged foods, cigars and cigarettes, beverages, some clothing, household appliances; and we can include here also the "light" capital goods, such as small electric motors or automobiles, which are sold under brand names).

59. The price stability of branded goods is largely due to deliberate decisions of manufacturers and traders, which are facilitated by the resistance to change that characterizes imperfectly competitive markets. But it must be remembered that stability is a feature of the markets of developed countries; in under-developed countries even goods which are sold at stable prices at the ports may have great price instability at their final point of sale.

60. Among the primary commodities, agricultural products are especially liable to suffer from instability, because irrevocable decisions to produce are taken some time in advance—a few months or perhaps several years. Once planted, a crop is harvested provided that the costs of harvesting can be covered; the "floor" to prices is thus usually very low. The production of minerals can be adjusted more frequently and easily, and the price fall which causes such an adjustment to take place is usually less than in agriculture; on the other hand mineral consumption is more affected by a general recession.

61. It follows from this discussion that prices could be held within much narrower limits without creating the probability that their long-term alloca-

tive function would be frustrated. It follows also that a comprehensive policy of price stabilization has to take account of several different patterns of price formation. In particular, we shall supplement our discussion of commodity stabilization (in chapters 5 and 6) by a proposal (in chapter 8) which might give some measure of stability to the capital goods market.

What is to be stabilized?

62. But is it, in fact, obvious that prices should be the main object of stabilization? When we come to analyse this matter, the possibilities prove to be numerous:

(*a*) Are we to stabilize prices; export earnings of countries; the total values of the production of countries; the incomes of individual primary producers?

(*b*) Are we to stabilize these quantities in money terms or in real terms? If the latter, in relation to the prices of manufactures, to the prices of the goods which countries buy from overseas or to the prices of goods bought by individual producers?

(*c*) Are we to stabilize them for single commodities, or for groups of commodities?

(*d*) Are we to stabilize them for all countries taken together or for single countries (or for trade between particular pairs of countries)? In interpreting this list, it must be remembered that by "stabilization" we mean the prevention of erratic and excessive fluctuations, and not any resistance to desirable and orderly change.

63. This list alone yields the bewildering variety of thirty-two major alternatives, with many minor variants. Fortunately, common sense and our terms of reference enable us to eliminate many of these. We begin by looking at the matter from the differing points of view of the original producers, of final consumers or users, and of trading countries. The individual producer of a primary commodity wants (or might reasonably be expected to want) a real income which rises in an orderly manner, just as the individual consumer or final user wants to have a rising trend in the real purchasing power of his income. The exporting country is interested, in its foreign trade, in obtaining an orderly increase in the buying power of its exports over the goods which it needs to import. Sometimes a more limited interest is mentioned, namely, the stability of the buying power of a margin of export proceeds earmarked for economic development over the capital and other goods required for that development. All these interests, it will be noticed, are in relative prices so that they are not fully served by regulation of a few primary commodities alone.

64. Our terms of reference relate most clearly to stabilizing the real export earnings of primary producing countries, especially in relation to the finance of their development. But governments can (and do) try, by separate action, to stabilize the incomes of individual producers and the purchasing power of consumers. Such action can be regarded as a useful auxiliary to the main task of stabilizing international transactions in commodities, provided that domestic action by producers or consumers with

a large share of the market does not have harmful external effects. Thus crop insurance schemes which share the burden of unfavourable weather conditions, or marketing boards which insulate the producer from some of the fluctuations of the world market, can be regarded as useful supplementary action. On the other hand, protection schemes which handicap efficient producers and maintain the inefficient have to be looked at with suspicion. The lessening of wide fluctuations in consumer prices, by price control or subsidy, may be in the interests of producing countries by lessening instability in purchases; but, again, such action, when taken by a large country, may have undesirable side effects. We shall consider these matters further in chapter 8.

65. Export earnings vary with quantity sold as well as price; and, depending on the circumstances of the particular commodity, there are several different ways of treating this variable. Thus, it may be that, without any intervention, world consumption is relatively stable, and that no action affecting the sales of individual producers is desirable lest resources should be inefficiently allocated. Again, it might be possible (though very difficult) to devise schemes which would stabilize the total of world sales while leaving the sales of individual producers free to vary within the total. Or the stabilization scheme might allocate sales to individual producers as well as controlling the price; though this we shall later condemn. Finally, the object of stabilization could be the export earnings themselves, undue rises in quantity sold being compensated by falls in price; though it is difficult to imagine a workable and acceptable way of achieving this.

66. The "real value" of export earnings in international exchange depends also on the prices of imports and the composition of the import trade of the country concerned. There seems often to be a tacit reliance, in the discussion of commodity agreements, on the assumptions that primary commodities are exchanged for manufactures and that the price fluctuations in manufactures are not large enough to matter. Either or both of these may (for the countries involved in a particular agreement) be untrue. Alternative ways of dealing with the problem are:

(*a*) To do rough justice by some formula adjusting commodity prices when prices of the corresponding imports change;

(*b*) To control certain basic prices of manufactures or of semi-manufactures; or

(*c*) To devise special machinery for offsetting relative price movements between a country's exports and imports.

67. We thus see that different parties to commodity discussions may have different ideas about what is to be stabilized; and to treat price stability as the main object of policy may be no more than a convenient simplification. Our terms of reference are largely concerned with the *price relation* between primary commodities and capital goods. This is not, however, a magnitude easy to define or to observe, and, although in chapter 7 we discuss compensatory measures based on the terms of trade, it seems to us that the chief stabilizing measures must be directed at the prices of the separate classes of goods.

Can commodity stabilization be considered separately from general stabilization?

68. The last sections have drawn attention to some of the differences in the formation and behaviour of prices, and have discussed what it is that is most in need of stabilization. We now ask another question. Is it not possible that the common influences exercised on given markets by the general "state of trade" are much more important than the peculiarities of particular commodities? Is there, in fact, a separate problem of primary commodities, or must we regard it as our main task to propose measures to deal with inflation and deflation in general?

69. This is a familiar difficulty, for economic problems are so interconnected that it is very difficult to discuss one without discussing many. On the other hand, too broad an approach makes for superficiality, and a treatment of the many internal and international measures which might be taken to deal with the dangers of inflation and deflation lies well outside the apparent intentions of our terms of reference. But we are firm believers in a "multiple aproach". We do not think that single commodity agreements will be adequate by themselves to withstand a world-wide inflationary or deflationary movement; but equally we think that general stabilizing policies will require the assistance of specific measures for particular commodities.

70. In chapters 6 and 7, however, we discuss certain general stabilizing measures which have a special relevance for commodity trade and development. Accordingly we here state some views and principles which underlie that discussion.

71. (*a*) Inflation and deflation both generate complex reactions, some of which tend to reinforce the initial movement and some to slow it down; but over the initial period of a year or two, the tendency to reinforcement is dominant. This makes it very difficult to hold to a middle path between inflation and deflation.

(*b*) Since deflationary movements, if they go far enough, involve unemployment and a lessening of production to meet human wants, they are commonly and rightly regarded as especially to be avoided. But in consequence some governments try to ensure "full employment" by measures involving continuous inflationary pressure. This tends to give rise to high profits, and these in turn join with rising prices to stimulate wage demands which, under conditions of labour shortage, are likely to be conceded. Thus an initial inflationary move magnifies and perpetuates itself. What began as an effort to avoid a plunge into deflation may in fact result in serious and continued inflation.

(*c*) In so far as governments tend to err on the side of inflation because of their fears of inability to control a deflationary movement, they will be helped to minimize this error by stabilizing measures which are effective in limiting deflation; come into action promptly, being "automatic" and not dependent on a long chain of special decisions; and are directed at sensitive key points in the economic system, such as raw material prices and the price level and activity of capital goods industries.

(*d*) Such rapidly acting stabilizers, controlling the system by frequent small impulses rather than by sudden drastic action, still have to be supplemented by many other measures to remove special distortions or to encourage desirable long-term adjustment.

The "commodity" and the "monetary" aspects

72. To stabilize the price of a commodity is equivalent to stabilizing the power of money to purchase that commodity. Within a country, single commodities often account for only a tiny proportion of the total flow of transactions which constitute the work which money has to do. The money implications do not therefore force themselves upon our attention except in times of general price control, or in countries where a high proportion of income is dependent on the commodities being stabilized. If we are thinking of stabilizing prices in international transactions, the monetary implications can be looked at both in relation to the economies of the buying and selling nations, and in relation to the transactions between them. A commodity which is not important in relation to the internal flow of transactions may nevertheless be very significant in relation to a country's foreign exchange earnings. But it has been usual tacitly to ignore even the international monetary implications, as long as stabilization proceeds piecemeal by single commodities.

73. This is no longer excusable if a whole group of commodities is stabilized together; the twenty-five most important internationally traded commodities account for a third of world trade, and, even if such an act of stabilization is not allowed to affect national monetary policies, it would profoundly affect international monetary relations. It is arguable, in fact, that a major act of price stabilization is primarily the creation of a new monetary system; at the very least it must be realized that schemes covering many commodities are an interference with money just as much as they are an interference with trade in particular products. There is here a dividing wall in peoples' thought, and we hope that this report will help to break it down. This is our reason for discussing in chapter 6 some matters which require further study in the monetary field.

Signposts for remedial action

74. Once it is agreed that international action is required and desirable for relieving the community of nations of the grave disturbances created by highly unstable markets for primary goods, the question becomes one of the rational choice of remedies. In chapters 5 to 8 we deal with a number of these.

75. Yet these distinct types of action, and the several variations that present themselves for their implementation, are so diverse that any attempt at laying down a set of guiding principles to which they should all adhere would have to operate at an excessive level of generality. In the present chapter, therefore, we restrict ourselves to noting two main problems. Starting from the assumption that remedial measures should not only introduce a greater measure of stability in the world economy, but should also promise no more than minimum interference with other economic ob-

jectives shared by the community of nations, we have singled out economic growth as the most important of these other economic goals. In the following paragraphs, we indicate broadly how this consideration has influenced our thinking on the problem of practical stabilization measures. This does not mean that the pursuit of international stabilization schemes will not incur costs in terms of still other economic objectives. For example, some of the proposals discussed in the following chapters require considerable amounts of finance. The raising of the sums involved would clearly present great difficulties in many, if not all, countries; nor can it be guaranteed that financial losses will not occur. Yet benefits can rarely be secured without incurring costs, if only in the form of risks; and we assume that action towards increased stability is worth some price, provided the net benefits can be safely expected to exceed it.

76. The springs of economic growth are numerous. But, viewing the world as a whole, one condition of growth is surely that productive resources should be allocated efficiently and, hence, that this allocation should be adapted as quickly and fully as possible to fundamental long-run changes in the conditions of supply and demand. As long as no alternative means exist for signalling and stimulating the required changes in resource use, we affirm that long-term changes in the price relationship between commodities must be permitted to perform this function as best they can.

77. It is for this reason that organized interference with the short-term instability of primary commodity markets should refrain from disrupting long-term price movements. What should be stabilized are short-term fluctuations around long-run price movements—be they up, down or continuing on an even level. To implement this principle is, indeed, the major operational problem of all measures examined in chapters 5 and 6. We doubt if stabilization measures can avoid affecting basic price developments altogether. But we consider it indispensable that deviations from the long-run price movements that would prevail in the absence of international market controls be kept to a minimum. In view of man's limited ability to predict the future, this will be difficult to accomplish. Yet we do not believe the difficulty to be insurmountable provided governments set a high value on the purpose of stabilization and are, therefore, disposed to forego possible short-run gains which would be at the expense of stability, and at the expense of one another.

78. The consideration expressed in paragraph 76 has also induced us to refrain from proposing that measures designed to stabilize commodity prices in the short run should be used at the same time as, or be accompanied by, measures for stabilizing primary commodity prices at a level in the long run more favourable in relation to the prices of manufactures than would otherwise prevail. In other words, the question is whether average commodity prices over the long run should be raised by special action in order to augment the export proceeds of primary producing countries and thus to assist in their development.

79. It is our conviction that it is preferable not to mix "trade" with "aid". If aid is to be extended by the advanced to the economically less

developed countries—and this in our opinion is in the interests of all—it should preferably be given by means that will not distort the flow of trade or the long-run trend of prices. The function of these prices is to reflect changes in the underlying conditions of supply and demand and to promote an allocation of productive resources that maximizes world economic growth.

80. This does not mean that we consider market prices to be either "natural" or sacrosanct. We do not want to make a fetish of them. Short-term changes in commodity prices we consider to be often excessive and pernicious in their full consequences and we are prepared, therefore, to recommend their control by inter-governmental action. Nor do we believe that the long-run price movements which actually evolve under prevailing market conditions are exactly identical with the long-run price changes that will maximize economic growth in a dynamic world. Unfortunately, there are far too many national interferences with domestic and international markets to preserve this identity. Furthermore, commodity prices are now determined to some extent by the bargaining of governments. The prices which result from the bargaining process must inevitably reflect the bargaining strength of the parties. This clearly introduces into price determination an element which is essentially unconnected with the process of long-term market equilibrium, even if the harmful consequences of economically unrealistic prices force the bargaining results to be modified, and even if the anticipation of such ill consequences restrains governments in the full exercise of their bargaining power.

81. We indeed find it necessary to point to some further effects of government bargaining on primary commodity prices. There are strong grounds for assuming that in such bargaining, viewing periods of commodity scarcity along with periods of commodity abundance, the bargaining power of the under-developed countries tends to be inferior to that of the industrial countries. This inferiority is likely to prevail because the economically under-developed countries cannot afford to carry large commodity stocks so easily as the industrial countries; because they require prompt receipt of income and foreign exchange for their export products; because their vulnerability to instability in primary product markets makes them even more interested in international stabilization measures than the industrial countries are; in short, because they are economically under-developed. The widespread adoption of international stabilization measures must inevitably increase the extent to which primary commodity prices are influenced by government bargaining. To the extent that the bargaining strength of the under-developed countries is exceeded by that of the industrial countries in actual bargaining situations, the latter countries would enjoy an edge of influence in the negotiation and renegotiation of commodity stabilization arrangements. Should they exploit this superiority, the economically under-developed countries would not only suffer an unfair disadvantage, they might also find it necessary to decide that stability would be bought at too high a price.

82. On the other hand, if international commodity stabilization should come to be extended to a large number of primary product markets, it is possible that this inferiority of the under-developed countries in bargaining strength would be offset, more or less, by the preoccupation of the industrial countries with price policies which tend to lift primary product prices somewhat above the level that would evolve in the market in the absence of international commodity stabilization. This preoccupation might well prevail in many industrial countries because their governments are, by and large, subject more to the pressure of domestic primary producers than to that of domestic consumers. Viewing their interests in a large number of primary products together, they might therefore favour relatively high prices of primary products in general. When industrial countries are exporters of primary products—or though being net importers, have a large volume of domestic production—their bargaining objectives might exhibit a bias towards relatively high prices in primary product markets.

83. We hasten to add that in paragraphs 81 and 82 we present hypotheses which, though we find them plausible, neither we nor anyone else can prove or disprove at the present state of knowledge. Nor is it possible to express these differences in bargaining power and bargaining objectives in terms that would give them operational significance. The only way in which justice can be done to these peculiarities, whenever they exist in actual bargaining situations, is for all governments to be aware of them and, especially, for the governments of economically advanced countries to perceive that it is not necessarily in their enlightened interest to exploit their possible edge in bargaining power. In other words, they might be wise to give the economically under-developed countries the benefit of the doubt.

PART II. THE MEASURES

Chapter 4

Review of past proposals

84. The following review of past proposals is selected and arranged with the sole purpose of enabling our recommendations to be judged in relation to our predecessors in thought and policy; it does not aim at comprehensiveness. Accordingly, the classification adopted for this historical review corresponds to the order in which our own proposals are developed in the following chapter. We feel that the pre-1929 world is now too remote to be of much relevance for our present problems; accordingly, no attempt has been made to carry the historical review beyond that date.

MULTILATERAL COMMODITY AGREEMENTS

Pre-war and war-time developments [1]

85. The sharp decline in primary commodity prices, starting in the late nineteen-twenties, created an increasing interest in concerted international action for inter-governmental regulation of trade in primary commodities.[2]

86. The London Monetary and Economic Conference of 1933 considered the advisability of concerted international action to regulate the production and marketing of foodstuffs and raw materials of great importance for international trade. The Conference approved a report by one of its sub-commissions which defined in greater detail the principles that should govern inter-governmental arrangements. These, the report stated, should conform to certain conditions, and *inter alia*, they should be fair to both producers and consumers, comprehensive as regards producers, administratively practicable, of adequate duration, and flexible with respect to adjusting supply to changes in demand.

87. Looking back a few years later on the role of the commodity agreements in the subsequent recovery, the League of Nations Committee for the Study of the Problem of Raw Materials noted that:

> ". . . while it would not wish to state that all regulation schemes in the past have been well conceived or beneficial to all the interests concerned [the Committee] considers that the governmental regulation schemes relating to raw materials now in operation have, generally

[1] For a comprehensive description, see International Labour Office, *Inter-governmental Commodity Control Agreements* (Montreal, 1943).

[2] The World Economic Conference (Geneva, 1927) had already examined the question of control of raw material supplies, in the light of regulatory schemes by producers and merchants which had spread in the nineteen-twenties. The Conference, in its final report, emphasized the necessity of approaching commodity agreements from the point of view of broader general interests. It described such agreements as a development ". . . which has to be recognized and which, from this practical point of view, must be considered as good or bad according to the spirit which rules the constitution and the operation of such agreements, and in particular according to the measure in which those directing them are actuated by a sense of the general interest".

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> speaking, been an important factor in the improvement in economic conditions experienced in producing countries during the depression, as well as in the development of international trade."[3]

88. The agreements thus described as having been "an important factor in the improvement of economic conditions" related to wheat (1933), sugar (1937), tea (1933, 1936 and 1938), rubber (1934, 1936 and 1938), timber (1935), tin (1931, 1933, 1934, 1937 and 1938).[4]

89. To these there was added in 1940 an agreement on coffee. While details varied, these inter-governmental agreements tended to broaden previous producers' agreements in the direction of international administration of the schemes by specially established supervisory bodies as well as participation or representation of importing countries in the negotiations.

90. Apart from the above-mentioned inter-governmental agreements, a number of other schemes were also established in the nineteen-thirties which were, however, confined to producers' agreements (particularly among minerals) or to regulation of trade by bilateral agreements. Moreover, other proposals for further inter-governmental control had reached an advanced stage of discussion by the time the Second World War broke out.

91. During the war, the principal belligerents regulated the import of many foodstuffs and important materials by centralized buying, combined purchasing boards and allocation of supplies among different users. Some of the existing agreements were continued during the war years, and a new tin agreement was concluded in 1942. Moreover, some of the foundations of post-war agreements were laid during the war. Thus the Wheat Protocol of 1942, signed by four large exporters and the United Kingdom, provided for a post-war International Wheat Conference. The Hot Springs United Nations Conference on Food and Agriculture (1943) as well as such regional meetings as the Second Inter-American Conference on Agriculture (Mexico City, 1942) emphasized the potential value of commodity agreements for the promotion of economic stability and development.

Post-war developments

92. The subject of inter-governmental commodity arrangements was considered at the Preparatory Committee of the United Nations Conference on Trade and Employment and later at the Conference in Havana (1947 and 1948). The result of these discussions is embodied in chapter VI of the Havana charter. The purpose of commodity agreements is defined as follows:

> "to prevent or moderate pronounced fluctuations in the price of a primary commodity with a view to achieving a reasonable degree of stability on a basis of such prices as are fair to consumers and provide a reasonable return to producers, having regard to the desirability of securing long-term equilibrium between the forces of supply and demand;

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[3] League of Nations, *Report of the Committee for the Study of the Problem of Raw Materials* (Geneva, 1937.II.B.7).

[4] The dates indicate the years of agreements or major amendments to existing agreements.

to maintain and develop the natural resources of the world and protect them from unnecessary exhaustion;
to provide for the expansion of the production of a primary commodity where this can be accomplished with advantage to consumers and producers, including in appropriate cases the distribution of basic foods at special prices;
to assure the equitable distribution of a primary commodity in short supply." [5]

93. The Havana charter also established general procedures for the negotiation of commodity agreements, including preliminary study, wide representation in negotiation and administration of agreements, and full publicity at all stages.

94. Even before the Conference, the Preparatory Committee as well as the Food and Agriculture Organization Preparatory Commission on World Food Problems requested the Economic and Social Council to set up machinery for a systematic approach to commodity problems. Acting on these requests, the Council adopted resolution 30 (IV) of 28 March 1947, requesting Members of the United Nations to adopt as a general guide in inter-governmental consultation or action with respect to commodity problems the relevant principles laid down in the draft charter of the International Trade Organization, and requesting the Secretary-General to appoint an Interim Co-ordinating Committee for International Commodity Arrangements.

95. This Committee at present consists of a chairman nominated by the Contracting Parties to the General Agreement on Tariffs and Trade, a member nominated by the Food and Agriculture Organization of the United Nations, to be concerned in particular with agricultural primary commodities, a member to be concerned in particular with non-agricultural primary commodities, and a member with wide experience in the problems of countries undergoing development whose economies are dependent on the production and international marketing of primary commodities.

96. With respect to the calling of commodity conferences, the Council adopted resolution 296 (XI) of 2 August 1950, which *inter alia* authorizes the Secretary-General:

"to convene, on the advice of the Interim Co-ordinating Committee for International Commodity Arrangements acting on the request of an appropriate inter-governmental study group, inter-governmental conferences whose terms of reference shall be to discuss measures designed to meet special difficulties which may exist or may be expected to arise concerning a particular primary commodity."

97. The Council further requested the Interim Co-ordinating Committee, in considering its advice to the Secretary-General, to follow the relevant principles laid down in the Havana charter.

98. Since 1946, several governmental conferences have taken place under the auspices of the United Nations, but for only two commodities has an agreement been reached, (wheat 1949 and 1953, and sugar 1953). In addition, a new agreement was reached by the tea producers' associations of

[5] Article 57, (*c*), (*d*), (*e*) and (*f*).

some major export countries, subject to the approval of the governments concerned. To this may be added arrangements concluded as a result of advice of the regional bodies of the United Nations [6] and regional governmental bodies. The post-war period also saw certain emergency mechanisms established multilaterally, mainly by important consumers.[7]

99. The International Wheat Agreement reached in 1949, and renewed in 1953, does not include provisions for quantitative control of production or export quotas. On the other hand, it embodies an agreement by each exporter to sell specified quantities of the commodity within a given price range, and an agreement by each importer to purchase specified quantities within the same price range.[8] Even though the International Wheat Agreement succeeded in its immediate objective of providing a measure of stability to export and import prices of the commodity for the guaranteed block of trade, certain features of the agreement have come under critical scrutiny, especially its pricing provisions.[9] The lack of provision for adjustment of the agreed price has been pointed out, and two possible types of adjustment have been considered: (*a*) adjustment in the direction of the difference between the average prices paid in the previous year in transactions on guaranteed and non-guaranteed quantities; and (*b*) adjustment in the direction of the general level of international trade prices, so as to protect the real incomes of both producers and consumers of wheat from the impact of general inflationary and deflationary tendencies.

100. The International Sugar Agreement reached in 1953, like the wheat agreement, is limited to a part of world trade—in this case, the so-called "free market" in sugar.[10] The International Sugar Agreement also sets a price range; provision is made for price adjustment by the International Sugar Council. Basic export tonnages of the free market are set for each of the exporting countries, subject to modification, with changes in prices taken as an indication of need to adjust supplies. Exporting countries agree to adjust production in order to prevent excessive stocks, but also to prevent shortages by the maintenance of adequate stocks. Importing countries agree to limit their purchases in the so-called "free market" from non-participating countries.

101. While only sugar and wheat have reached the stage of multilateral inter-governmental agreement, other commodities [11] are under consideration by study groups and may reach the stage of conferences sooner or later.

[6] The Economic Commission for Asia and the Far East participated in studies and discussions prior to the rice meeting at Baguio, Philippines, in March 1948, called under the joint sponsorship of the Food and Agriculture Organization and the Interim Coordinating Committee for International Commodity Arrangements.

[7] International meetings involving such matters as conservation of resources also had some bearing upon international regulation of commodity trade. Agreements arrived at by bilateral negotiations were, of course, quite frequent.

[8] In 1951/52, the "guaranteed quantities" constituted a little more than half of total world exports.

[9] Food and Agriculture Organization of the United Nations, *A Reconsideration of the Economics of the International Wheat Agreement*, Commodity Policy Studies, No. 1. (Rome, September 1952).

[10] That is, excluding transactions concluded under special arrangements.

[11] Including cotton, rubber, tin and wool.

PROPOSALS FOR THE ESTABLISHMENT OF INTERNATIONAL BUFFER STOCKS

102. The second group of proposals that has received considerable support during the past twenty years centres around the idea of creating international buffer stocks in important individual commodities. The common idea is that resources should be used to buy commodities when prices fall below a certain floor, and should be recovered by selling the commodities when prices exceed a specified higher ceiling. Of course both prices need to be revised from time to time.

103. The only international buffer stock ever to reach the stage of actual operation was the tin buffer stock, which was in operation from 1931 to 1934, from 1934 to 1935 and from 1938 to 1939. This experience is of only limited present value since the stocks were formed and managed only by the producers and were generally too small to achieve much.[12]

104. No other schemes became effective, although the previously quoted *Report of the Committee for the Study of the Problem of Raw Materials* of the League of Nations contained the suggestion "that the governments of the principal consuming countries form buffer stock committees and invite representatives of restriction schemes to co-operate in the establishment and operation of a buffer stock".

105. With the Second World War approaching, it was logical that the idea for further action should be considered from a national point of view. In the United Kingdom, J. M. Keynes advocated the idea that the government should invest as much as £500 million in buffer stocks with the dual purpose of stabilizing commodity prices and accumulating strategic reserves.[13]

106. The first official proposal for operation of buffer stocks on an international scale appeared in the report of the League of Nations on *Economic Stability in the Post-war World* (Geneva, 1945). While welcoming such proposals, the report also pointed out certain pre-conditions of success.[14] The report described an illustrative arrangement, where prices are stabilized within a range of 20 per cent above and below a standard equal to a moving average of prices for the preceding eight to ten years. It concluded that:

> "variations of the maximum and minimum prices would be required whenever stocks tended to accumulate over any considerable series of

[12] For details of operation and appraisal of results, see K. E. Knorr, *Tin under Control* (Stanford, California, 1944).

[13] "The Policy of Government Storage of Foodstuffs and Raw Materials", *The Economic Journal*, September 1938. Keynes continued to be impressed by the economic arguments in favour of international buffer stocks, and advocated the idea subsequently. In a book called *National Reserves for Safety and Stabilization* (London, 1939), L. St. Clare Grondona strongly advocated the establishment of large buffer stocks in the United Kingdom. The central idea was that a British corporation would determine an annual base price for selected imported commodities and stand ready to buy each commodity in unlimited quantity, for one year at least, at 90 per cent of base price and to sell to the extent of its holding at 110 per cent of base price. The author did not contemplate buffer stock action by a group of nations.

[14] "(i) The stocks should have a financial backing of strength adequate to ban any speculation on its breakdown; (ii) they should be so large as to preclude speculation on their exhaustion; (iii) they should be subject to a determined policy of price stability and not of maximum profits" (chapter XIX, page 266).

years because the maximum was too high or to vanish because the minimum was too low. For buffer stocks to operate successfully, the mean price should be such as to adjust production to demand over the period of the cycle." [15]

107. A further impulse towards the establishment of buffer stocks is contained in the report of the United States President's Materials Policy Commission.[16]

108. The report emphasizes the disadvantages of instability for all parties involved:

> "The violent fluctuations subject industrial nations to economic difficulties since periodically they have to pay excessive prices to overcome shortages of materials and thus, at the root of all production, encounter a potent inflationary force. Even greater injury is caused to the economies of resource countries which often depend heavily on the marketing of a few materials. Short-term and violent boom-and-bust cycles cause unemployment, severe declines in their revenues, foreign exchange and balance of trade position, all of which hinder them in planning and carrying through balanced programmes."

109. The favourable conclusion of the Commission on the potentialities of buffer stocks (as well as multilateral contracts), deserves quotation in full.

> "The Commission believes that, on balance, the international arrangements that hold the greatest promise for stabilizing materials markets and, at the same time, for promoting the increased production of materials that the future will demand are the multilateral contract type of agreement and buffer stock agreements either without or with quota provisions on exports or production. The appropriate mechanism for particular problems must be decided case by case.
>
> The Commission believes further that, despite the clear difficulties of negotiation and the fact that the United States would be called upon to finance a considerable share of the costs, commodity agreements of the type endorsed hold sufficient promise of reducing materials market instability and its harmful consequences to free nations to merit serious consideration and efforts to work out, as tests, stabilization agreements with other countries for a few materials. Greater stability would mean enlarged production of scarce materials. Failure to work toward stability would continue a major source of economic strain in the free world, and would leave the door open for reappearance of the pre-war cartels and restrictive agreements with consequent limitations on production, consumption and trade."

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[15] The chairman of the delegation that prepared this report, Mr. W. W. Riefler, later published "A Proposal for an International Buffer Stock Agency" in the *Journal of Political Economy* for December 1946, in which he considered the difficulties and possibilities of such an agency and concluded that political and administrative objections might be overcome and buffer stocks might be operated and might be successful in stabilizing international trade in raw materials and food.

[16] *Resources for Freedom*, vol. 1, chapter 15, "Reducing Market Instability" (Washington, 1952).

Commodity currency proposals

110. This type of proposal arose out of the problems of the great depression of the early nineteen-thirties. A number of economists almost simultaneously arrived at proposals to stabilize the prices of groups of primary commodities by some measure of monetization.[17] Some of these proposals have been made on an international basis, others for adoption by only one or a number of countries. Several authorities have declared that the proposals could be operated either with or without an international agreement. Since the establishment of the International Monetary Fund, however, increasing thought has been given to the necessity of supplementing the functions of the Fund by operating a commodity reserve scheme. A specific supplementation of the International Monetary Fund by an International Commodity Corporation (ICC) was proposed by Mr. Benjamin Graham.[18] This corporation would carry out the function of stabilizing prices by the methods of the commodity reserve scheme.

"111. The proposals may differ in respect of the commodity unit to be stabilized. Mr. Benjamin Graham in proposing a commodity unit of products[19] established the following criteria for selection: "

"(i) Stabilization of the unit must result in a reasonable degree of stability in the prices of other goods and services.

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[17] J. Goudriaan, *How to Stop Deflation* (London, 1932). The sub-title of this publication is "Stabilizing the gold value in terms of goods by means of open market operations of the circulation banks in the commodity markets in accordance with the formula: one kilogramme of gold equals the sum of fixed quantities of raw materials". Professor Goudriaan made proposals in this direction as early as October 1931 in various issues of *Economisch-Statistiche Berichten*. Frank D. Graham, "The Creation of Employment", *Economic Forum*, Spring 1933. Benjamin Graham, "Stabilized Reflation", *Economic Forum*, Spring 1933. These three authors subsequently elaborated their proposals in various other publications. Especially noteworthy are the following: J. Goudriaan "Economie in Zestien Bladzijden", *Introduction to Analytical Economics* (Amsterdam, 1953); Frank D. Graham, "Prime Functions of Money and their Consummation in Monetary Policy", *American Economic Review*, Proceedings, March 1939 Supplement; "Transition to a Commodity Reserve Currency", *ibid*, September 1941; *Social Goals and Economic Institutions*, (Princeton, 1942); Benjamin Graham, *Storage and Stability* (New York, 1937) and *World Commodities and World Currency* (New York, 1944). See also Khouw Bian Tie, "Stabilization through Monetization", *Economics and Finance in Indonesia*, August 1953.

These proposals were also supported by Professor F. A. Hayek, in "A Commodity Reserve Currency", *The Economic Journal*, June-September 1943. A critical evaluation is found in "Commodity Reserve Currency: A Critique" by Beale, Kennedy and Winn, in the *Journal of Political Economy*, August 1942. The Benjamin Graham *Commodity Reserve Proposal* has been submitted to over-all evaluation and detailed study by a group of economists under the general direction of M. K. Bennett of the Food Research Institute, *International Commodity Stockpiling as an Economic Stabilizer* (Stanford, California, 1949).

See also, for early proposals of a more restricted character from France, Italy and the United Kingdom, L. Fizaine, *Crise et Monnaie* (Nancy, 1933); F. Nomi, *La Realta Monetaria* (Milan, 1933); Pethick Lawrence, *The Money Muddle and the Way Out* (London, 1933).

The above is by no means a comprehensive bibliography of commodity reserve proposals.

[18] *World Commodities and World Currency.*

[19] *Ibid.* The commodities suggested were wheat, corn, cotton, wool, rubber, coffee, tea, sugar, tobacco, petroleum, coal, wood-pulp, pig-iron, copper and tin.

(ii) The unit must not be arbitrarily constituted in the sense that some commodities are unduly favoured over others.

(iii) Assuming that the units are to qualify as monetary reserves, then the group of commodities should together supply a satisfactory basis or equivalent for currency." [20]

In a more recent development of his proposal, Mr. Graham suggested a new combined monetary base consisting of 40 per cent gold and 60 per cent commodity reserves.[21]

112. Professor Goudriaan, in the latest presentation of his proposal,[22] stressed particularly the necessity of using, in addition, the classical methods of central banking policies, such as bank rate policy and open-market operations in order to keep the commodity reserves within reasonable limits; and also the need for supplementary stabilization measures outside the field of primary commodities.

General proposals

113. Perhaps special mention should be made of two proposals relating to food, both arising from the war-time and immediate post-war desire for more general schemes of international reconstruction and co-operation. These are the proposal for a World Food Board, and the proposal for an International Commodity Clearing House.

114. The proposal for a World Food Board was made by the Food and Agriculture Organization in 1946,[23] and placed before the Copenhagen Conference that same year. This proposal stressed the importance of nations not only consulting together but also acting together, and for this purpose proposed a World Food Board with the necessary authority and funds to fulfil four main functions: to stabilize prices; to establish an emergency world food reserve; to finance the disposal of surplus products on special terms to needy countries; and to co-operate with other organizations in matters of credits for development and trade and commodity policy.

115. In respect of the first of the above-mentioned functions, stabilization, the World Food Board was expected to operate by means of buffer stocks, in line with the previous recommendations of the League of Nations.[24] It was suggested that, for safety, the normal stocks held by the Board should represent six to twelve months' trade, though this figure would vary from commodity to commodity. As for the financing of the Board, the report stated that "the relative benefits derived from the stabilization operations by different countries—exporting and importing, developed and under-developed—would need to be carefully weighed". It

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[20] *World Commodities and World Currency*, page 72.

[21] Benjamin Graham and Julius Hirsch, *Stockpiles for Stability—Buffer Stocks and International Monetary Policy* (September, 1952).

[22] "Economie in Zestien Bladzijden", *Introduction to Analytical Economics*.

[23] *Proposals for a World Food Board and World Food Survey* (Washington, October 1946).

[24] See above, paragraph 104.

was also suggested that the Board, apart from the contributions for financing the holding of normal stocks, should also be authorized to borrow on the market in order to finance the holding of additional stocks when required. The Board would also require finance in order to divert unmarketable surpluses for sales at prices below the market prices.

116. The Copenhagen Conference set up a Preparatory Committee, composed of sixteen countries, in order to examine this project in more detail. The Preparatory Committee, while recommending the creation of "Price Stabilization Reserves" (buffer stocks), declared that "the only practical procedure under present conditions" was by way of nationally held stocks, administered under internationally agreed rules. The Preparatory Committee arrived at this conclusion because "many important governments are unlikely to accept the obligation of making large financial contributions to international price stabilization reserves".

117. No action was taken on this proposal during 1947 and 1948, largely because of the Havana Conference, from which it was then expected a separate international organization would emerge to undertake the functions proposed for the World Food Board; but when the Havana charter was not ratified and surpluses of commodities were appearing in the international market in 1948, the Director-General of the Food and Agriculture Organization was instructed by its Council to prepare a further report on commodity problems with the co-operation of outside experts.

118. This new directive resulted in the proposals for an "International Commodity Clearing House".[25] The proposed International Commodity Clearing House was to be constituted as a public corporation with an authorized capital fund equivalent to $5 billion. Its functions were similar to those of the World Food Board, except that the problem of inconvertible currencies played a greater part in the new arrangements proposed.

119. Again, however, this proposal was rejected by the subsequent Conference of the Food and Agriculture Organization on the grounds "that the financial functions proposed for the International Commodity Clearing House could be performed by the governments directly involved" and that it was extremely doubtful if governments would be willing to accept such new international commitments.[26]

[25] *World Commodity Problems*, report prepared by a committee of six economists under the chairmanship of Professor Condliffe (Washington, September 1949).

[26] In addition to these two proposals, mention may be made of two more far-reaching proposals put forward by Professors A. Hansen and J. Viner.

Alvin Hansen proposed, in "World Institutions for Stability and Expansion", *Foreign Affairs*, January 1944, the establishment of an International Commodity Corporation to be additional to two other international agencies, one for monetary problems and the other for international financing.

Jacob Viner proposed a third institution to supplement the International Bank for Reconstruction and Development and the International Monetary Fund, to be in charge of an "international employment stabilization fund, endowed with very great financial resources, much along the lines of the International Bank for Reconstruction and Development, but on a scale perhaps three or four times as great". Among the functions of this fund he mentioned the achievement of general stabilization, and added, "any programme of accumulation of stocks of basic commodities and for the maintenance of 'ever-normal granaries' could readily be fitted into the operations of this agency" (*Journal of Political Economy*, April 1947).

Proposals by United Nations committees of experts

120. The committee of experts which prepared a report in 1949 on *National and International Measures for Full Employment*,[27] apart from recommendations directed towards internal stabilization, also considered the question of stabilization of income of primary producers. Its report stated that the "most suitable method for maintaining agricultural incomes is the stabilization of the prices of staple commodities in the world market, either through international commodity stabilization schemes, such as the International Wheat Agreement, or through the national commodity stabilization schemes of those countries which control a substantial part of total world trade in any particular commodity". The committee recommended a meeting under the auspices of the Economic and Social Council "in order to develop a joint programme designed to establish, at a reasonably early date, a new structural equilibrium in world trading relationships . . ." Further relevant proposals were the setting of "targets" by countries for the more important balance of payments items, including imports and capital outflows, stockpiling "as part of more general national schemes adopted by particular countries for stabilizing the prices of staple commodities in terms of their own currencies" and particularly a "permanent and systematic international scheme", to be operated through the International Monetary Fund, for replenishing the monetary reserves of countries which find their reserves depleted by the fall in the demand for their exports.

121. A group of experts, in a report on *Measures for the Economic Development of Under-Developed Countries*[28] recommended that "the developed countries should desist from commercial policies which hinder the development of the under-developed countries" and, specifically, that "they should not fix ceilings for the prices of imports without simultaneously controlling the prices of exports which under-developed countries buy from them so as not to affect adversely the terms of trade of these countries". In dealing with the problem of cyclical fluctuations in terms of trade, the report stated that "what is important to under-developed countries is not just the maintenance of their import capacity, but the maintenance of their import capacity without excessive indebtedness". The report contained some suggestions for individual action by under-developed countries to reduce the incidence of the trade cycle upon their economies. It also recommended that "during periods when there is a general scarcity of supply of goods, the developed countries should establish machinery to ensure that the under-developed countries obtain an equitable share of capital goods and of other materials for maintaining their programmes of development".

122. Finally, the report of a group of experts, on *Measures for International Economic Stability*,[29] made a number of recommendations relevant to the terms of reference of the present Committee. The report suggested that governments should reconsider the case for a series of commodity arrangements of various types; also that the International Bank for Recon-

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[27] United Nations publication 1949.II.A.3, paragraphs 164, 186 to 188, 201 and 202.
[28] 1951.II.B.2, pages 94 and 95, paragraphs 226, 227.
[29] 1951.II.A.2, paragraphs 85 and 86, 94 to 98, 126 to 143.

struction and Development might indicate "that it is willing in principle to consider participating in the financing of commodity arrangements that involve buffer stocks". The use of existing international bodies for the co-ordination of commodity arrangements was also suggested.

123. In addition to action in the commodity field, the report contained various proposals for contra-cyclical variations in the supply of capital funds for economic development by governmental and inter-governmental agencies "in the light of fluctuations in the foreign exchange receipts of the borrowing countries on current account and on other capital account and within a total burden of external debt which the borrowing country can reasonably assume". One of the suggestions in this direction was that countries borrowing from the International Bank for Reconstruction and Development should be allowed to increase the rate of their drawings against the Bank's loans, if their own export proceeds fell substantially. In addition to contra-cyclical long-term lending, the report also recommended replenishment of international monetary reserves as a buffer against trade fluctuations, mainly by changes in the policies and enlargement of the resources of the International Monetary Fund.

Chapter 5

International commodity stabilization schemes

124. It is clear from the preceding chapter that there has been no lack of proposals for dealing with the instability of primary commodities and of the terms of trade. But these proposals have not so far led to effective action. Is this due to inherent defects in the proposals themselves, or are methods having every prospect of success held up merely for lack of the will to apply them—because their adoption would conflict with national objectives outside the field of commodity stabilization or for some other reason? Although the Committee cannot, of course, entirely ignore considerations of this kind, they are necessarily outside its frame of reference. Our analysis and recommendations are concerned with the intrinsic merits and defects of various stabilization arrangements.

125. The subject is so complex that it may be useful to begin with a systematic listing of conceivable arrangements by which the objectives identified in chapter 4 might be implemented.

126. Type of agreement

(a) *Bilateral contracts*

(b) *Multilateral contracts*
Bilateral and multilateral contracts are designed to fix both prices and quantities or to limit the price range for a defined volume of trade.

(c) *International quota agreements*
These arrangements determine a price range indirectly by regulating the quantity of production, exports or imports.

(d) *International buffer stock agreements*
These agreements determine a price range indirectly by purchases for or sales from stock.

Provision for obtaining stability in real terms

(a) *No provision*

(b) *Adjustment by periodic renegotiation alone*

(c) *Adjustment by an automatic formula*

(d) *Inclusion of some imports of primary producers in stabilization agreements*

Commodity coverage of agreements

(a) *Single-commodity agreements*

(b) *Multi-commodity agreements for stabilizing several individual commodities*

(c) *Multi-commodity agreements for stabilizing the price of a group of commodities*

THE TYPES OF AGREEMENT

Bilateral contracts

127. Apart from the inter-governmental trade arrangements between the Union of Soviet Socialist Republics and a number of other countries, a large part of world trade is governed by contracts between pairs of countries. Examples are the so-called "long-term" contracts between the United Kingdom and some of its suppliers. Similarly, there are arrangements which give a country a special share of a market. An example is the quota system governing supplies to the United States sugar market. A long-term contract does not necessarily have stabilization as its major objective. It may leave the price to be renegotiated each year, its prime purpose being to encourage an expansion of production by guaranteeing a market at a price expected to be "reasonable".

128. It is not, perhaps, beyond imagination to conceive of a world in which nations attempt to stabilize prices and export proceeds, regulate production at particular levels, and arrive at a mutually desirable relation of primary product prices and other prices by means of a maze of bilateral contracts. Yet this is unlikely to happen in the foreseeable future, and we need not be concerned now with bilateral contracts as the principal instrument of market stabilization. What is worth considering is whether the extension of bilateral contracts is possible or desirable as a subsidiary to other stabilization arrangements.

129. As a stabilizing device, the operation of long-term contracts is subject to a number of defects and disadvantages. One of these is that "long-term contracts" are usually short-term contracts. Even if an arrangement stretching over several years is formally intended by the partners, it frequently provides for the annual renegotiation of the vital matters of price and, possibly, quantity. To be sure, when the partners have such a close general relationship that neither will attempt to drive too hard a bargain, both parties may look forward to satisfactory renegotiations. Nor can it be denied that many countries welcome an assured price and an assured market for part of their exports or imports even when the assurance covers no more than a year. Nevertheless, the measure of stability which such contracts can at best achieve is decidedly limited.

130. The stability of contract arrangements is clearly affected by the possibility that, as a result of faulty forecasts, an importing country will find itself committed to pay a high price to a particular exporter when prices outside the contract have fallen; or, conversely, that an exporting country will receive a low price when prices outside the contract have risen.

131. Another disadvantage is that residual variations in demand and supply become concentrated on the non-contract or "free" markets, and make them highly unstable. An example is sugar, for which the so-called "free market" now covered by the International Sugar Agreement is only one-sixth of world production and one-half of world trade. Not only may the residual "free" market be subject to especially severe disturbances; the free market price also becomes, under these circumstances, a doubtful index of secular trends in demand or supply.

132. Long-term contracts are clearly more feasible when governments engage in buying and selling primary products than when trade is left to private sellers and buyers. Where private trading is preferred, exporters and importers must be organized for the purpose of negotiating and operating contractual agreements, and this raises several problems, especially in importing countries. When government is not involved in the operation of long-term contracts, it may well—through policies concerning trade, foreign exchange, prices, rationing, monetary and fiscal matters—obstruct the fulfilment of contractual obligations assumed by private organizations. It is also possible that the very formation of private trade associations is considered undesirable on general grounds. Moreover, trade associations, particularly among importers, are less interested in stability than in the short-term maximization of profits. Their approach is narrower than that of governments. Not only does this tend to reduce the bargaining power of exporters, to whom stability is of more vital concern, it must also diminish the scope, duration and dependability of long-term contracts. In some countries government trading itself may be the subject of lively political controversy with the result that it will expand and decline with changes in government.

133. Further, if a pair of countries has been tied together by contract for some time, either country may find itself in grave difficulties if it suddenly, on the breakdown of a contract, has to re-enter a world-wide market. There are therefore possibilities of exploitation of the weaker partner in a contract, which increase as time goes by. It is, as we have noted, possible that, considering periods of commodity scarcity along with periods of abundance, the bargaining power of primary producing countries as a whole is somewhat inferior to that of industrialized importing countries. Frequently, exporting countries cannot afford to accumulate stocks as large as those carried by industrial importing countries, and they are generally highly dependent upon the prompt accrual of income and foreign exchange.

134. In conclusion, we feel that bilateral contracts may well be a possible means of market stabilization for minor commodities, for which other techniques are unsuitable, or where special circumstances promise a reasonable degree of success. Nor do we deny that the bilateral contract may have certain advantages, though not unmitigated by defects, when the primary purpose is expansion of productive capacity rather than moderation of violent short-term fluctuations in the market. We do not feel, however, that a greater resort to this method would be likely to reduce market instability appreciably.

Multilateral contracts

135. A multilateral contract may be no more than an arrangement, specifying prices and quantities, between more than two countries. In present-day discussion, however, the term has come to have a special application to contracts of the type of the International Wheat Agreement, and the term will be used in this sense in the rest of the chapter. The International Wheat Agreement is an arrangement by major exporters to make available specified quantities of wheat at a certain "upper price", matched by an

agreement by certain importers to buy specified quantities at a certain "lower price". If the free market price lies between the upper and the lower price, the agreement has no effect on trade that takes place. If the free market price rises above the upper price, the exporters yield a part of the advantage which they might have gained by selling a part of their crop at the upper price. If the free market price falls below the lower price, the importers forgo a part of the advantage which they might have gained. The agreement is a guarantee of willingness to supply and to buy, and this certainly has some value apart from the limitation of price movements.

136. Such an arrangement has several good points. It is a form of mutual insurance policy, presumably balancing the interests of exporters and importers. It involves the minimum of interference with market operations and the pattern of trade; it sets no limits on production, and does not prevent the emergence of new or lower cost producers. It can work without being universal, though its stability is obviously affected if major countries find that they can do better by staying outside.

137. The gap between the upper and lower prices in such an agreement is a measure of the difference in the expectations or hopes of the two sides. This is true because the willingness to accept loss is limited, so that the price range can only be narrowed to the point at which each side (basing its judgment on its own expectations) reaches the highest risk it is willing to bear. Consequently large divergences in price expectations show themselves in a price gap so large that the free market price is likely to remain inside it; and the agreement will then have no practical effect.

138. The extension of the multilateral contract to other commodity fields is limited by the peculiarities of different commodity markets. The International Wheat Agreement relates to a commodity produced in many types and qualities, but for which it was technically possible to relate all prices, by prescribed differentials, to a single basic price. Without this simplification it is doubtful if agreement could have been reached; and it is clearly very difficult to arrange a multilateral contract for a commodity which is marketed in a number of varieties, with widely fluctuating differentials between them, and with only partial substitutability of one variety for another.

139. The first International Wheat Agreement, which ran from 1949 to 1953, operated smoothly, though with a price advantage entirely to the importers. The willingness of exporters to renew it with only a small increase in the maximum price shows, however, that the net advantages cannot be judged solely from a comparison of free market and agreement prices. Stability has value in itself. On the other hand, the refusal of a major importer to sign the second agreement, which is to run from 1953 to 1956, is an ominous indication of the tendency of such measures to break down as soon as they fail to serve the immediate national interests of the members. Multilateral contracts are an attractive type of agreement for commodities which satisfy the technical condition mentioned in paragraph 138; but if the views of governments about them are too far apart, they will be mere empty shells, with a price range so wide and a period of agreement so short

that they have little stabilizing effect. We find little evidence, with this, or indeed with other types of agreements, that governments are as yet assigning to stability a high enough value to justify hopes of smooth negotiation and renegotiation of effective arrangements. Until there is a change of attitude, multilateral long-term contracts cannot be expected to contribute materially to the stabilization of the world's primary commodity markets.

International quota agreements

140. By a quota agreement we mean an agreement which regulates the quantity of a commodity which may be produced or exported by each producing country; or which regulates the quantity which may be imported by each using country; or which divides up exports or imports by allocating fixed percentages to each country. Quota agreements by exporters have been in the past much the most frequent form of commodity agreement, being designed ostensibly as a defensive measure to prevent competitive price cutting and the poaching of markets in bad times. The purpose of quota agreements is to limit a movement of prices by controlling the quantities traded, or to safeguard the position of established trading nations, or both. International agreements of this kind have of course numerous analogues, both national and international, in the operation of private cartels.

141. The expert committee on *Measures for International Economic Stability*,[1] reporting in 1951, wrote as follows:

> "Provided fair representation is accorded to both sides, we do not wish to rule out any particular type of agreement. We believe, however, that the allocation of maximum production quotas should be avoided so far as possible. These tend to freeze the geographical pattern of production and may lead to unnecessary unemployment of resources; where practicable it is better to stockpile a commodity in times of reduced demand than to limit its production. (There is no objection to the allocation of maximum *export* quotas provided output is not restricted and any excess is temporarily stockpiled.) Only where surpluses cannot be dealt with by stockpiling, and where the working of the price mechanism would restore a balance between supply and demand only painfully and slowly, should restriction of output be considered. In an expanding world economy, restriction of output is likely to be both unnecessary and undesirable for most commodities. Likewise, restriction of consumption by the allocation of import quotas should be avoided except in cases of international emergency."

142. We agree with this view, and are willing to be more definite. Quota restriction of production or exports is a response to a fear of surpluses; but there are two kinds of surplus. There are surpluses which emerge in all industries from time to time, but which in the course of a few months or years are eliminated by the rise of demand; and there are those which appear in an industry which, for technological reasons or because of changes in taste, is contracting or dying. We are prepared to agree that quota agreements may have their place in securing the orderly reduction or demise of industries in this latter class. We do not think that they are desirable in other cases.

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[1] Paragraph 71.

143. There are two reasons for this opinion. One (which applies to quantitative limitations of production or exports) is that there is, we think, more substance than is sometimes allowed in the simple-minded protest that it is wrong to restrict production when so much of the world is poor. The emergence of a temporary surplus should be a signal, not for restriction, but for a search for means of expanding the demand; the immediate palliative should be, wherever possible, the storage of the surplus and not its elimination through restriction. The danger of restriction is that it becomes a substitute for measures to expand demand, and that it leads to a régime in which profits are maintained by high prices on a low turnover. This argument, of course, applies equally to national schemes of restriction.

144. The second objection to quota restriction applies also to "percentage" sharing of markets, and the objection seems to us to be well founded in theory and experience. It is the harm done to economic progress by freezing a particular pattern of production or exports. The demands for quota restrictions often come from high-cost producers (who see their hold on the market slipping) and are supported by allegations of "unfair" and "wasteful" competition. We do not deny the occasional need for regulating unfair trading practices, but we think that it is all too easy to use it as an excuse for preventing desirable progress towards a more efficient allocation of resources.

145. Quotas may also be used to provide for an orderly increase in production and export capacity. For instance, the new International Sugar Agreement provides for this possibility. However, although such provisions are an improvement on purely restrictive schemes, they are a small improvement attached to an arrangement that remains basically objectionable. For practical purposes, quota agreements tend to restrict or freeze production or exports even though, now and then, an additional measure of flexibility is introduced into the administration of the restrictive controls.

146. It goes without saying that restrictive trade and price controls administered by private business concerns are liable to be fully as harmful as inter-governmental quota arrangements, and perhaps more so because they are commonly secret, make no provision for consumers' representation, and are impervious to the broader considerations that may influence government policy. Yet we think it worth while to emphasize that, if quota agreements are in general eliminated from inter-governmental practice, it becomes all the more urgent for governments to take effective action against restrictive business practices. Primary producing countries may claim to be disadvantaged if they are deprived of the alleged benefits of quota agreements while they remain subject to the ill effects of private restrictive business practices emanating predominantly from the industrial countries.

147. International regulation of imports can be condemned on the same grounds that render the restriction of production and exports undesirable. It also leads to the inefficiency of allocation which is a feature of all rationing. Yet there may be circumstances that condone temporary resort to inter-governmental regulation of imports. The International Materials Conference may be cited as an example. Its prime purpose was not to

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moderate short-term price fluctuations but to prevent raw materials in extremely short supply, and essential to industrial production in many countries, from going (in disproportionate quantity) to the highest bidder.

International buffer stock agreements

148. A buffer stock agency is an organization for maintaining price stability or ensuring future supplies by purchasing and withdrawing supplies from the market when prices are weak, and selling stocks when current supplies fall short of demand. Its open-market operations follow the practice of exchange stabilization funds which are set up to maintain stability in a free foreign exchange market. The purpose of buffer stocks is not to interfere with the price trend that will equate supply and demand in the longer run, but to moderate violent short-term fluctuations of price around this trend.

149. A buffer stock does not of itself involve interference with the pattern of production and trade. That is its great virtue. It leaves low-cost producers free to increase their share of the market, and it permits consumers to buy where they want to. In full operation, and in possession of adequate reserves both of a commodity and of money to purchase more, its existence might be a powerful deterrent to the speculation which sometimes makes commodity markets more unstable. On the other hand, any suspicion that the buffer stock agency has resources insufficient to check a price movement would tend to set in motion speculative sales or purchases which would add to the strain on those resources. The agency therefore requires for its effective operation massive reserves of money and of the commodity; and it can afford to economize on either of these only by admitting greater variability in its buying and selling prices.

150. The need for holding a sufficient stock of the commodity means that the agency must begin operations by purchases in a period of surplus, or else take over some existing non-commercial stock. It must also operate with a commodity capable of storage and having storage costs which can either be carried on the profits of the scheme, or borne by separate government subscription. The profits are usually considered to arise by purchasing whenever the market price falls to, say 90 per cent of some "basic price", and selling when it rises to 110 per cent; but it is not necessary for the operation to be limited by such definite rules, and the agency could if desired apply different criteria to different grades and types of the commodity, or, as we shall see, it could operate in several commodities at once. Nevertheless, there must be some group of price levels, which we can refer to conveniently as the "basic price", which form the aim of the stabilization policy.

151. The group of experts on *Measures for International Economic Stability* discussed at some length technical questions relating to the successful operation of a buffer stock.[2] We shall not follow them into all the details, for we think that if satisfactory answers could be found to the following

[2] Paragraphs 74 to 84.

main questions, less matters would be easily dealt with:

(*a*) How is the "basic price" to be fixed initially, how is it to be varied, and what are the rules for action if the reserves of money or of the commodity run low?

(*b*) What is to be the source of finance?

152. It seems obvious enough that a buffer stock should be used to even out short-term and cyclical variations in prices, but not to resist a long-term trend. In practice, however, the long-term movements can only be discerned *ex post* and after a considerable interval. The initial basic price can be fixed at some level, which seems, on the basis of past experience and in the light of reasonable forecasts, to be "on the trend". The degree of doubt about this level will be very great, and it is important for the success of the scheme that no attempt should be made to place on the buffer stock the additional task of shifting the terms of trade. It would invite trouble to set a price which is outside any reasonable range of estimates of the "normal".

153. Whatever price is set may soon cease to be appropriate, and the signal that the basic price has departed from the trend will be a tendency to accumulate more of the commodity on downswings than can be disposed of on upswings; or to dispose of more on upswings than can be bought on downswings. Such symptoms must be treated as a signal for changing the basic price. Different methods are available for regulating changes in this price. In principle, the choice is between resort to an automatic formula, negotiation by the participating governments, or a combination of the two. A formula—presumably one making price changes automatic when there are excessive accumulations or losses of commodity stocks—has the advantage of not requiring renegotiation, which may be difficult and which, though reflecting the balance of bargaining power, will not necessarily yield a correct revision. The drawback of a formula is its blindness to important market conditions left out of its construction, and hence the probable hesitation of governments to tie themselves to its operation. It seems to us that a combination of the two principal methods may afford the best approach towards resolving this vexing problem. Within any one year, a relatively small, but precisely defined, revision of the basic price might be left to the buffer stock authorities to make as soon as depletions or accumulations of stock reach a previously fixed limit for the year. On the other hand, major changes of the basic price might be subject to renegotiation by the participating governments. In order to discipline the bargaining process, it might be considered whether further automatic changes in basic price should not take place if renegotiation ends in an impasse although withdrawals from or additions to stocks threaten to terminate the operation of the buffer stock at the prevailing basic price.

154. It is in line with our previous condemnation of quota agreements that we now express serious doubts about the wisdom of buffer stock arrangements allied to the quantitative restriction of exports or production. The temptation may be great to rescue a buffer stock from apparent financial losses in the face of a persistent slump in prices. The proper remedy, however, is then a decrease in the basic price rather than resort to quota

restriction. Only in the exceptional case which we discussed in paragraph 142 should temporary recourse to restriction be made. If one or two among a number of international buffer stocks end in financial loss, this risk should be regarded in the nature of an insurance premium worth the measure of stability which buffer stock operations in a number of commodity markets might afford.

155. It is necessary to add, however, that there is no past experience which enables us to judge whether a buffer stock agency would be successful in confining price variations to a relatively narrow range about a smoothly varying basic price. The expectations of business men about the future course of prices are frequently wrong, and the agency might badly misjudge the underlying trend of prices and be forced to make sudden large readjustments. It might also be subject (as national stockholding agencies are) to great political pressure. It would seem common sense, therefore, not to insist on too narrow a range of permissible price fluctuations and to experiment with one or two simple commodities before embarking on large schemes involving many commodities at once; though we shall see later that other reasons speak against this initial period of experiment.

156. This brings us to the second question: how is the scheme to be financed? It can be taken for granted that the buffer stock authority will begin purchasing operations when prices are slumping. This will in any case ease the problem of finance. We note that the authors of *Measures for International Economic Stability* propose (in paragraph 79 to 84) that money should be subscribed or lent by importing and exporting countries and by the International Bank for Reconstruction and Development. We understand that the suggestion that the Bank should lend funds for this purpose has not been favourably received by that institution, since the prevention of short-term price fluctuations is distinct from long-term development and lies more clearly within the orbit of the International Monetary Fund.

157. It seems to us that a new international agreement would be needed if funds for the scheme are to be channelled through either the Bank or the Fund or through a new international agency. We cannot offer estimates of the amounts of finance which buffer stocks might need, for the sums required depend on many factors—such as the initial buying price, the range of permissible price fluctuations and the arrangements for changing the buying price—regarding which we could make no more than arbitrary assumptions. But we fear that it might be very difficult to persuade governments to set aside sufficient funds. This is an operation in which the only safe policy is to make a fair estimate of the sum required and double it; finance ministers and legislatures are often more prone to cut estimates than to increase them.

158. International buffer stock agreements might provide either that the location of stocks, as well as buying and selling, is left to the discretion of the international buffer stock authority, or that stocks are stored in importing countries according to agreed proportions. It is also possible, however, to conceive of a series of national buffer stocks to be administered in con-

formity with internationally agreed rules on prices. Among the advantages of this arrangement are that it simplifies the problems relating to different grades of the commodity concerned and to the location of stocks; and that each country decides on its own method of finance. Yet there is also a disadvantage. This is the danger that a system of national buffer stocks would make it more difficult for individual countries to stay in good faith with international arrangements or to accept the decisions made by the international authority. For this reason, there could be less confidence in the integrity of buffer stock management than would prevail if the physical stocks and market operations were under the control of an international authority.

159. We are aware of the fact that past attempts at stabilizing primary commodity prices by means of independent national buffer stocks have been a failure; and that, in many instances, they have led to schemes restricting output or exports in order to rescue a buffer stock whose financial capacity was becoming exhausted. We do not believe, however, that experience with national buffer stocks is relevant to the prospects of an international arrangement. National buffer stock managements have so far invariably been under pressure by producers whose short-term interest lay in high as well as stable prices; and when the buying price of buffer stocks is set higher than the price that will equate, over a period of time, the volumes demanded and supplied, the management of buffer stocks must dispose of immense financial means, or else production must be restricted by direct controls. In contrast, international buffer stock agreements will (if they follow the principles approved by the Economic and Social Council as a guide in negotiating commodity agreements) provide importing countries, taken together, with a voice in management equal to that of exporting countries, taken together. Subject to the qualification mentioned in paragraph 81, this parity of influence should guarantee that buying prices will not be set too high in the longer run.

160. The fear that unwise economy might jeopardize the success of the buffer stock scheme has been one of the reasons for our later examination (chapter 6, below) of proposals for automatically financing the holding of stocks by the creation of new money. Buffer stock schemes are attractive in their flexibility and their lack of interference with shifts in production and trade; but if they are to be considered seriously as a means of stabilizing the prices (or the average price) of a large number of commodities, the financial problems are likely to become so serious as to demand radical thought on monetary policy.

General considerations on single-commodity agreements

161. Like most of those who have studied commodity problems, we are impressed by the remarkable variations among them. It would be foolish to lay down a single form of agreement as an exclusive pattern. Because of the peculiarities of individual commodity markets, and because of limited experience with the various types of commodity agreements, what is most needed is the utmost flexibility in devising arrangements. Nor is the choice of method confined to the types of agreement we have discussed. In some

cases, it may be found possible and useful to combine two of these distinct methods in a single operational scheme or, though separate administratively, to use them for mutual support. There may be an advantage in relying on the gentle application of two controls rather than on the severe aplication of one. Since we are strongly opposed to quota agreements, we do not recommend that restrictive regulations be combined with a buffer stock. It is feasible, however, to combine buffer stocks with multilateral contracts if the peculiarities of the commodity market concerned and the interests of governments favour such a solution.

162. These considerations tend to support a gradual, experimental, inventive approach to individual commodity markets. However, as we point out below (paragraph 176), reliance on the commodity-by-commodity approach also has its drawbacks. But proposals for a unified approach to several commodities at once can be justified only if the need for unity does not lead to a disregard of the very real diversity of commodity problems.

163. We would like to draw attention to the fact that the benefits which nations may obtain from commodity agreements can be classified on many different levels, from the most immediate money gains, through the longer term national advantages of stability, to the broader benefits which may be expected to accrue from world-wide stability. If the eyes of negotiators are fixed on the narrowest short-run advantages, commodity agreements will be very difficult to reach, especially as they are nowadays expected to include consumers as well as producers; and they will easily collapse. Only by rare coincidence will there be sufficient identity of short-run interest to make agreement possible. But if governments will fix their eyes on the fuller long-run advantages which may accrue to their own countries from world stability (a pre-condition of prosperity), a lasting identity of interest will more easily be perceived and reached.

164. It is now generally taken for granted that, in the establishment and operation of inter-governmental commodity agreements, the importing countries, taken together, should have a voice equal to the exporting countries, taken together. Although it is apt to impede the successful negotiation and renegotiation of agreements, we believe this principle to be valid, for only in this way is it possible to prevent stabilization schemes from being exploited in the short-run interest of either exporting or importing countries.

165. However, for the reasons stated in paragraph 81, it is possible that the economically under-developed primary producing countries do not in general have a bargaining strength equal to that of the industrialized importing countries. We see no operationally feasible way for remedying this situation. Yet we think that the economically advanced countries should be aware of it and, in the bargaining process, give the economically underdeveloped countries the benefit of the doubt.

166. Any stabilization scheme for a particular commodity should pay attention to national restriction or quota systems which may produce an artificial shortage or result in the price at which the commodity is offered by a given exporter being set unduly high. Obviously such action by an

important exporting country may have a distorting effect on the whole agreement; and importing countries may well hesitate to enter into undertakings without receiving assurances that the national policies of exporting countries will not be manipulated to their disfavour during the operation of the agreement.

Provision for obtaining stability in real terms

167. We have noted that, as far as prices are concerned, the main interest of producers or consumers, and of exporting or importing countries, lies in stabilizing them in relative and not in absolute terms. It does not follow that it is wholly desirable to devise arrangements to cause the prices of primary and manufactured commodities to move in unison, that is, to "freeze" the terms of trade between them. Such arrangements would have the effect of increasing the propagation of inflationary or deflationary movements from one country to another, and, because of rigidities in the economic system, such propagation cannot be dismissed as solely a money change and of no consequence.

168. Nevertheless, there are two reasons why a demand for stability in the prices of manufactures (especially capital goods) is likely to continue. One is that the stabilization of commodity prices throws into relief the changes in real income caused by changes in the prices of manufactures. Thus, when certain prices were limited by price controls during the Korean hostilities, there was an outburst of criticism on the loss of purchasing power of the affected commodities compared with manufactures. The second reason is that occasionally the stabilization of money prices may destabilize real incomes; the fluctuations of the terms of trade are held partly in check by the tendency of the prices of raw materials and manufactures to move together.

169. There is, however, a further argument in reserve, or rather a double argument: namely that the prices of manufactures are sufficiently stable already, or if they are not, they will be when prices of materials are stabilized. The first part we have seen (chapter 2) to be true if a sufficiently large group is taken, but the stability of manufactures as a group is small comfort to a country with a specialized development scheme whose cost has suddenly increased. The second part contains a plausible argument if commodity stabilization becomes sufficiently general. There is no doubt that the most variable element entering into the prices of many manufactures is the cost of raw materials, and that in some countries fluctuations in material prices are magnified in the stages of manufacture through the habit of using fixed percentage markups. We have also noticed that many primary producing countries are large importers of primary products, so that a stabilization of commodity prices will by itself limit the fluctuations in their terms of trade.

170. There is thus a strong case for the first choice in paragraph 126, under provisions for obtaining stability in real terms—inaction—especially if commodity stabilization becomes widespread and if industrial as well

as economically under-developed countries succeed in checking inflationary pressures in their economies. Moreover, we shall suggest in chapter 8 that countries do more, through their buying policy, to limit the price fluctuations in capital goods which, within the large group of manufactures, experience highly unstable prices. If further action is needed, we have set down three alternatives in paragraph 126; (*b*) adjustment by periodic renegotiation alone; (*c*) adjustment by an automatic formula; and (*d*) inclusion of some imports of primary producers in stabilization agreements.

171. Although bilateral trade agreements may provide for some stabilization of the imports of primary producers, as a general stabilization device we consider (*d*) to be impracticable. We cannot conceive of multilateral arrangements extending among the myriad varieties of manufactures, or even of semi-manufactures. The recent negotiations for the International Wheat Agreement included discussion of (*c*), automatic adjustment of prices by a formula linking them to an index of the general price level. The advantage of such automatic machinery is that an agreement can run longer without renegotiation, and thus have fewer points at which there will be uncertainty and a danger of breakdown. On the other hand, while doing rough justice to all producing countries together, an adjustment formula will not, except by accident, give full protection to any one producing country. During a time when fears of large general price movements are still strong, countries are not likely to want to forego the protection given by a chance of renegotiation. They will not have sufficient confidence in the efficacy of a formula, especially since it has not been tried. It is also clear that a formula and its operation are difficult to explain to the general public and that this handicap in itself militates against this method of implementing readjustments. The incorporation of such a formula, however, may make commodity agreements more attractive to some governments than they would be otherwise.

172. In conclusion, then, we think that the need for special adjustments to give stability in real terms would be much less if there were a comprehensive system of commodity stabilization agreements. If such a system does not come into existence, we doubt if governments will be willing to give up the flexibility and protection offered by frequent chances of renegotiation. The more successful and comprehensive the stabilization arrangements become, the longer can be the intervals between these renegotiations.

The commodity coverage of agreements

173. We now approach the very heart of our problem. It is implicit in the previous discussion that we wish to give full attention to the differences between various commodities, and to devise arrangements which allow for growth and change, for producers to sell in the best market and for consumers to buy whenever they wish. For this reason as well as on the ground of impracticability, we cannot imagine a world-wide version of the "parity price" system by which the United States protects its domestic agriculture. Over a period of time, the artificial preservation of a particular set of price

relationships would require international and national controls over the production and allocation of commodities; and it would distort the allocation of productive resources in a manner harmful to both economically advanced and economically under-developed countries.

174. We have also remarked on the advantages of a step-by-step and experimental approach in this difficult and untried field. Our commendation of the theoretical advantages of buffer stock schemes, for instance, would come with much more force if there had ever been a period of successful operation of an international buffer stock operated by both exporting and importing countries. The major industrial nations, while recognizing the seriousness of the problem, favour a gradual common-sense development, often known as the "commodity-by-commodity" approach. Indeed, a memorandum of the secretariat of the Food and Agriculture Organization has lent cautious support to this choice of method (CCP 53/16, May 1953): "A comparison of the commodity-by-commodity approach with alternative lines of international policy in the field of primary commodities does not lend support to the opinion that this gradual approach should be abandoned in favour of more comprehensive solutions . . ."

175. On the other hand, at the time of writing, this approach, admittedly tried over a period of great difficulty and uncertainty, has, since the war, produced a restrictive quota agreement for a part of the world sugar market, a multilateral contract for wheat (renewed without the participation of the largest importer), and a still uncertain prospect of two or three other agreements. This is a discouraging record. Our investigations have given us little confidence that the record will be better in the future. Furthermore, we are impressed by the instability which commodity arrangements have shown throughout their history, and by the great difficulty of negotiating a satisfactory agreement. This instability and difficulty existed in pre-war days, when agreements were negotiated mainly between producing nations; they are likely to be increased by the fact that consuming nations now also claim representation.

176. This is a dilemma. We find, on the one hand, that gross instability in commodity markets is a problem requiring remedial action, but that, on the other hand, the gradual approach currently favoured shows small promise of action on an adequate scale. The way forward in the commodity field, it seems, is either to continue with the negotiation of separate commodity agreements, but causing the process of negotiation to show speedier and broader results, or to attempt to negotiate agreements covering several commodities at the same time.

177. We have studied carefully the administrative machinery established for convening inter-governmental commodity conferences—the Interim Coordinating Committee for International Commodity Arrangements and study groups—as we have been asked to do in resolution 462 (XV) of the Economic and Social Council. The administrative arrangement seems to us soundly conceived, and we do not think that more vigour can be infused into the single-commodity approach by minor improvements in the proce-

dures for calling and conducting international commodity conferences.[3] The limited results achieved thus far reflect, in our opinion, the limited possibilities of the commodity-by-commodity approach and the relatively low value hitherto assigned to commodity stabilization by many governments. To help towards more fruitful results, we propose, in chapter 9, the establishment of a commission of the Economic and Social Council, which is to be concerned with the instability of world commodity markets. It is to be hoped that this organ, if created, will assume determined leadership in pressing for international action in this field.

178. Our doubt about the prospects of success for the single-commodity approach leads us to recommend that governments examine the possibilities of simultaneously negotiating a number of commodity agreements. Two alternatives are to be distinguished: (*a*) the simultaneous negotiation of a number of international commodity arrangements, to be operated independently; and (*b*) the negotiation of single multi-commodity agreements.

179. At first sight, these approaches seem much more complicated than the gradual approach, and less likely to succeed. But they would have important advantages. Within the conference, bargaining could take place as tariff negotiations under the General Agreement on Tariffs and Trade—a country receding from an extreme demand over one commodity in exchange for a concession on another. The agreement arrived at would contain, for each country, a balance of advantages and disadvantages, which may be more easily accepted than the simple result of a single-commodity agreement. Thus, a country might perhaps be more willing to join an arrangement as an importing country if it can also join another as an exporting country.

180. A multi-commodity agreement would have the further advantage that it would normally continue to offer a country a selection of advantages and disadvantages for some time, and a government would hesitate to break it because of its disadvantages, lest at the same time its advantages should be lost. Single-commodity arrangements have time and again collapsed because it was to the immediate advantage of a government to be outside the agreement. A multi-commodity agreement might offer greater stability.

181. To negotiate a multi-commodity agreement does not necessarily imply that agreements for differing commodities should be forced into a common mould. It might be proposed, for instance, that a conference should be called for the simultaneous discussion of measures to stabilize ten or fifteen commodities. The conference would break up, for working

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[3] We think that in some instances the working of agreements would be made smoother if governments felt able to consult appropriate trade unions as well as employers' organizations in deciding the policies which they will adopt in a commodity conference or council.

Two members of the Committee (Messrs. Carter and Sumitro) add the following observation: "We are glad to note that it is possible to provide for the appointment of an independent chairman at a commodity conference, and we hope that this will be the usual procedure and that any other opportunities will be taken for securing the expression of views other than the immediate national interests of the participating governments".

purposes, into commodity sub-groups, but the proposed arrangements would be embodied in a single inter-governmental agreement.

182. The Committee is aware of the difficulties and shortcomings peculiar to what may be called the multi-commodity approach. Although we believe that it might achieve more than separate attempts at negotiating single-commodity agreements, we realize that the difficulties of negotiation would be great indeed. Mindful of the fact that most governments are more subject to the political pressure of producers than of consumers, we think it possible that, in the bargaining process, governments would be inclined to slight their interests as importing countries in favour of their interests as exporting countries; and that the price policy that would result from bargaining might set prices too high in relation to underlying conditions of supply and demand. Finally, there is the risk of failure as well as the promise of success on a comprehensive and emphatic scale. If a multi-commodity arrangement should fail, many governments might well refuse, for a considerable period of time, to consider further experiments in the field of international commodity stabilization. On the other hand, if one or two single-commodity arrangements should fail, their failure might be balanced or overshadowed by the success of other single-commodity agreements.

183. Nevertheless, we think that the advantages are sufficiently real to warrant a request to the commission, which we propose in chapter 9, to give serious thought to the possibility of multi-commodity agreements. There is no reason why such agreements should not embody several of the types of regulation which we have discussed. But an interesting special case would be an agreement to set up buffer stocks for a number of commodities simultaneously. There would then be an advantage in linking the buffer stocks together, so as to obtain some averaging of the requirements of different commodities for finance. Furthermore, the stabilizing of a whole group of basic prices would be an event having considerable economic repercussions, which would be more readily followed and understood if the buffer stocks had a common financial management. Such a common arrangement is fully consistent with the use of separate expert advice on when and where to buy and sell each commodity.

184. A more far-reaching proposal—which at this stage we still consider from the commodity viewpoint only—is the use of a buffer stock which would buy and sell combinations of commodities in fixed proportions, with the intention of stabilizing the value of a composite "commodity unit". Such a scheme would of course require a common buying and selling organization.

185. The advantage of stabilizing the price of a composite commodity unit is that, subject to qualifications noted in paragraph 187, it leaves relative prices free to vary and thus to perform the function of encouraging or discouraging the allocation of resources to particular productive purposes. Under a régime of numerous unco-ordinated single-commodity agreements, relative prices will be fixed almost by chance, and the incentive to shift resources from, say, wheat to corn will be the resultant of separate

price-fixing decisions by two groups. If the agreements are co-ordinated or consciously planned as a group, relative prices will still be a matter of administrative decision, which may or may not reflect the needs of mankind or the pressures of a free market. Provided the market is in reality sufficiently free to respond quickly and accurately to pressures of demand or supply, there is much to be said for leaving to it the job of allocating resources.

186. Stability and freedom can, however, be reconciled only at a cost. The cost is in part the risk of distorting the allocation between the stabilized group and commodities "outside" it; and in part the danger that commodities in the group will destabilize each other. Pending further study, we are not convinced that these distorting effects would be of major consequence. Regarding the first part of the problem, the operation of the scheme should tend to induce a shift from the production of stabilized to the production of non-stabilized goods when primary commodity prices are generally high, and to induce the opposite shift when these prices are generally low. However, this effect should generally be small because of difficulties in the way of shifting resources quickly from the production of one primary commodity to another. It is also possible that the net effect, taking periods of rising and falling prices together, would be to increase resource allocation to the output of the commodities in the stabilized group, in part because stability in itself is attractive. This would be undesirable unless this change in allocation were in any event required by basic alterations in the pattern of supply and demand. The quantitative significance of any possible distortion would be difficult to judge, especially in view of the fact that a host of national policy measures already interferes with the optimum allocation of resources.

187. We also find that the possible destabilization of commodities in the stabilized group requires further detailed investigation. In the light of knowledge currently available, we have arrived at the following tentative conclusions:

(*a*) The operation of the scheme will damp down cyclical fluctuations in prices and can be expected to make the residual changes in the prices of individual commodities more alike than they would be otherwise.

(*b*) In a group containing important agricultural products, the variability of crops may have disturbing repercussions on the prices of all stabilized commodities. Thus, if a short crop causes a shortage of one or more commodities, the agency holding stocks may be forced,[4] by the rise in the average price, to sell composite commodity units and thus depress the prices of other commodity units in the group. It should be noted, however, that bumper crops and crop failures are usually confined to individual production areas, so that their incidence on world supply is limited.

(*c*) The consequences of these vagaries of nature, as well as other disturbing changes peculiar to one or two commodities, depend upon five factors: (i) the number of commodities in the composite unit, (ii) the

[4] We do not enter into the possibility, which seems to us probably limited, of avoiding this by operations in futures.

relative weights of the commodities in the group, (iii) the difference between selling and buying price, (iv) the correlation among the prices of the commodities and (v) their individual variabilities.[5] The first and third factors can obviously be controlled in a way that would minimize the undesirable effects discussed.

(*d*) In the long run, the operation of the scheme must be expected to conflict with basic changes in the underlying conditions of supply and demand for individual commodities in the composite unit. These changes are normally slow and, if recognized, the scheme could be adapted to them by revising the composition of the stabilized group or modifying the weights of the members. This problem is discussed further in chapter 6.

188. In conclusion, the difficulties of operating such group stabilization schemes are considerable and, along with their beneficial effects, they are likely to have some distorting consequences. The schemes as here described are in any case relatively unattractive because of the difficulty of financing them. They would have much greater importance, and at the same time perhaps become much more feasible, when viewed from their monetary aspect. It is to this aspect of the problem that we turn in the following chapter.

[5] Professor Goudriaan has added a description of the technical relation of these factors in appendix B.

Chapter 6

Commodity reserve currency schemes

189. In this chapter we discuss a particular type of monetary reform which is a direct extension of the proposals for stabilizing the price of a composite commodity unit, discussed at the end of the preceding chapter. The essential part of this extension is that the stabilizing authority should have the power to pay for commodity units with newly created money, so that commodity units form part of the backing of the money stock. In the time available to us, we have not been able to give satisfactory attention to all aspects of this approach.

190. The previous history of "the commodity reserve currency" scheme is outlined in paragraphs 110 to 112 of chapter 4. The possibilities which we discuss in this chapter are, however, more varied and general than the schemes hitherto put forward. Although our terms of reference do not explicitly require us to examine suggestions for monetary reform, the commodity reserve currency proposals are "multilateral arrangements relating to groups of primary commodities", covered by paragraph 2 of General Assembly resolution 623 (VII). We also think it important that, even if governments are not at present prepared to consider far-reaching changes of the type discussed in this chapter, they should realize that adequate and general stability may require a fundamental review of the management of the world's monetary system.

191. At present the price of gold is stabilized in terms of dollars; its stability in terms of other currencies depends on national exchange rate policies, which in turn result from national monetary management. Most important currencies are in practice operated as managed currencies, money being created and destroyed largely at the will of the national authority, and usually with little or no regard to the gold backing. The price of gold has practically no direct economic links with the prices of other commodities; monetary influences on the prices of other commodities are the resultant of different and largely unco-ordinated national monetary policies.

192. If, however, the price of a group of basic commodities is stabilized,[1] this may be expected to have a direct influence in limiting the price fluctuations, first, of the commodities included in the group and then, in ever-widening circles, of all the goods which are manufactured from or linked with the basic commodities. In doing this, the stabilization scheme would to some extent restore the ability of the various currencies to provide a stable standard of value. This is true even if the scheme is of the "non-monetary" type described in the preceding chapter, provided that it has an assured source of finance and is thus in itself a stable arrangement. The significance of "monetizing" the commodity unit is, from a technical point of view, simply to provide the assured source of finance; that is to say, to provide

[1] This is equivalent to stabilizing a weighted index of prices.

an automatic means by which money can be created and flow as income into the hands of producers when depression is threatening. In full operation, the scheme also provides a means of lessening inflation by releasing stored commodities for sale, and by withdrawing purchasing power from the public.

193. Proposals of this kind are thus a means of counteracting general cyclical fluctuations, though they are not, of course, to be regarded as adequate in themselves to check the trade cycle. But (in the sense explained in chapter 3, paragraph 71) they might form an important part of a general stabilizing policy, because they are one of the possible means of operating quickly, automatically, and upon a particularly variable element of the economic system. It should be noted that previous discussions of the commodity reserve currency have usually supposed it to be linked with national currencies as was gold in the days of the full operation of the gold standard. The purchase of commodity units would in that case automatically create money to the amount of the purchase price, and their sale would automatically destroy it. This would make the administrators of the commodity reserve the governors of national monetary policies. Although there is an obvious advantage in such automatic operation, it seems to us to involve an inflexibility which is neither desirable nor likely to be accepted. Economic life is too complex to be safely subjected to the tyranny of simple mechanical formulae. The scheme as we shall discuss it makes the creation or destruction of money permissive only, so that countries would be free to use their national means of credit restriction and expansion as they think fit.

194. We will now examine some of the points of principle and technique which have to be decided in setting up a commodity reserve currency scheme.

The choice of commodities for inclusion

195. An ideal standard of value would be related in the same way to all goods and services entering trade; but of course the number of distinguishable goods and services is extremely large, and the services are difficult to define in a standardized way, while goods (especially manufactured goods) are constantly changing with technical progress and changes in taste and fashion. In practice, the number of items included in the commodity unit has to be cut down from possible thousands to perhaps ten or twenty. This means that the scheme will operate only imperfectly in stabilizing the value of money, and that supplementary measures to deal with particular price problems or distortions may be needed. But the degree of correlation between prices is so great that there is reason to hope that the stabilization of the prices of a few major commodities would exercise a powerful influence in lessening fluctuations in other prices.

196. The practical criteria which must be met by commodities to be included in the unit are these:

(*a*) They must be goods in general use, not liable to large changes in specification or style, and likely to maintain their role in economic life for a considerable period;

(*b*) They must be merchandized in well known and clearly defined standard grades or qualities;

(*c*) They must be storable for a reasonable time (at least a year) without serious deterioration, physical loss or excessive cost.

(*d*) They must be sufficiently important in economic life to warrant the trouble of enlarging the unit to contain them.

197. These rules, in practice, limit the choice to primary commodities bought and sold in well organized markets, and especially in markets dealing in futures, in which the definition of standard grades is certain to be precise. For a particular monetary area [2] adopting the scheme, the commodity unit would consist of specified quantities of certain commodities, defined with respect to both grade and location. The controlling authority would, however, need to have power to influence the price of the commodity unit by indirect measures, by purchasing other grades and buying in other places. It would obviously be exceedingly inconvenient if, for example, the only grade of cotton purchasable by the authority was "Middling 15/16" in New Orleans; and it would be impracticable to represent numerous other grades and places directly in the commodity unit, buying and selling them in rigid proportions, since the minimum size of a transaction would become undesirably large. It would thus be necessary for the commodity stockpile to contain grades, and be situated at places, other than those named in the commodity unit; in consequence the commodity market must be such that the money differentials between grades and locations are exactly and immediately determinable.

198. As can be seen from appendix A, the importance of commodities in world production [3] diminishes rapidly as we go down the list. It seems reasonable to suggest that the scheme would not have enough stabilizing influence with fewer than ten commodities, nor be conveniently workable with more than thirty. Some special problems are:

(*a*) Whether to include such commodities as wool, tea, skins and hides, and timber, which are sold wholly or in part at auctions and whose classification into standard grades presents technical difficulties.

(*b*) Whether to include agricultural commodities and minerals in the same composite unit. Their price characteristics are very different, the agricultural commodities being in general less flexible in supply but having in most cases a steadier market than the minerals. In fact, the cyclical movements of prices in the two groups have been similar, and, as the statements in paragraphs 186 and 187 suggest, the fear that they might destabilize each other seriously, if tied together in the same commodity unit, may be unfounded.

(*c*) Whether to include such minerals as coal, petroleum, pig-iron, steel and aluminum, which are subject in some countries to price regulation by private interests.

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[2] The limits of these monetary areas are discussed in paragraph 200 below.

[3] Shown exclusive of the Union of Soviet Socialist Republics. Production which is not sold for money should also have been excluded; see paragraph 203 below.

199. These are technical matters which would require special examination at the time of establishing of the scheme. It may be worth noting that any excluded commodities could be separately stabilized by ordinary (non-monetized) individual or collective buffer stocks. Indeed, subsidiary buffer stocks would stand a much better chance of success if the price level of more important basic commodities had already been stabilized.

The area of operation

200. As we have already pointed out in our discussion of buffer stocks (paragraph 158), there is a choice between operation by an international agency and operation by national agencies co-ordinated by international agreement. Previous discussion has usually assumed the first of these. The international agency would create new money which would be equivalent to gold[4] and would flow into the foreign exchange reserves of the countries whose commodities were purchased. These countries would then have to decide whether it was desirable or useful to expand their internal money supply. During the building up of the commodity stock, there would be an addition to aggregate foreign exchange reserves, and this is an attractive feature of the proposal in a world suffering from inadequate and badly distributed reserves. On the other hand, it is not easy to conceive of the operations of such an international agency except in a world of completely convertible currencies; otherwise the proceeds of its sales might not be capable of conversion to the same type of money as was originally created.

201. It would also be possible to operate the scheme through a number of national agencies in the principal countries, co-ordinated by an international agreement to use, broadly, the same commodity unit. In this case payment would be made in the national currencies concerned (which could be, but need not be, newly created for the purpose). Each country would define its commodity unit in terms of its own appropriate market and grade. Owing to the lack of effective arbitrage between certain commodity markets dealing in widely different grades, an international agency would probably have to include a number of different varieties and locations within the commodity unit; otherwise it would favour particular countries by giving their commodities support which was not effectively transferred to the markets of other countries. National operation avoids this serious complication and, although direct influence would be limited to the participating countries, it could be hoped that co-ordinated participation by three or four major trading countries would produce a fair measure of world-wide stability. But national agencies, unless very closely co-ordinated by international agreement, might work at cross purposes. Furthermore, a national agency might find itself forced to buy at a time when such purchases would strain the country's foreign exchange reserves; the co-ordinating agreement would have to contain provisions for special help at such times.

The relation to gold

202. It would cause too much disturbance and confusion in existing monetary relations if gold were to be either demonetized or included as a

[4] But see paragraph 202 below.

constituent in the commodity unit. In consequence, certain currencies would have to be tied jointly to gold and the commodity unit. The effect of this depends on the precise nature of the money issued in exchange for a commodity unit. If it takes the form of commodity certificates tied to a particular group of commodities at a particular place, these will not be competitive with gold as a means of international payment (because of the much heavier proportion of transport cost to value for commodities other than gold). An international agency could, however, issue commodity certificates which were shares in its total world-wide holdings, undifferentiated by location; it would appear likely that these would become indistinguishable from gold as a means of payment. A national agency would issue money indistinguishable from the money already in circulation in the country, and its relation to gold would be the normal relation of that national currency. The various possibilities require further investigation and study.

The amounts of the commodities in the unit

203. In previous discussion it has been proposed that the relative values of the commodities in the unit should be in proportion to values in world production, to values in world trade or to some average of the two. This matter also requires further study, but it would seem likely *a priori* that a roughly equal stabilizing effect would be exerted on the constituent commodities if their values were in approximate proportion to the flow of transactions to which they give rise in the particular market or markets being stabilized. Thus neither world production nor world trade would be an appropriate basis, but at most only that part of world production which is sold for money, that is, excluding the "subsistence production" of small farmers. Great exactitude is not, however, necessary.

Rules of operation of the commodity reserve

204. What should be the margin between the levels of the price index of the commodity unit at which buying and selling take place? What is the desirable range of size of the commodity stock, and what will be the cost of carrying it. The answers to these questions are interrelated; the larger the margin, the larger the average stock and the higher its carrying cost, but probably also the higher the return from buying and selling operations. It may be taken for granted that profit making would not be a major objective of the stabilizing agency. It might be reasonable to propose a small buying and selling margin (say $\pm$ 2½ per cent), so that control would be exerted by frequent small transactions, rather than by occasional interventions. But the initial transactions would have to be arranged so as to bring into the ownership of the agency enough commodity units to cover the expected selling operations of the first few years.

205. The purchase and sale of commodities to limit fluctuations should not be combined with stockpiling for entirely different reasons, for example, for strategic purposes. The size of stocks should be determined solely by the purpose for which they are established, and it should be kept in mind

that the buffer stock will usually be only a small fraction of the total commercial stock in the usual channels of trade. No serious physical difficulty of storage is therefore likely; indeed, the average amount of stock, including the buffer stock, might well be lower if stable prices were established and likely to continue.

Initial establishment and revision

206. Like any other buffer stock, a collective buffer stock has to begin in a period of price decline (or else take over pre-existing stocks, which would almost certainly be impossible). A long period of preparation would be needed, during which the composition of the commodity unit, the associated problems of grading and location, and the rules of operation of the scheme would be studied and agreed.

207. But no scheme could be expected to endure unchanged forever. This raises a difficult problem. On the one hand, a monetary standard ceases to be effective if it is subject to frequent and capricious change; this is a matter regarding which, as the history of gold shows, people are apt to insist on the outward semblance of stability even where they are not obtaining its reality. On the other hand, if the commodity unit remains unchanged for too long, this sets up strains between its constituents and possibly also in the price relations with goods outside. For instance, a declining commodity tends to become more unstable in price if it is maintained at the same amount in the commodity unit after its average commercial trade has fallen.

208. A need for revision might arise either because commodities have changed their relative importance (for instance, in recent decades rye has become less important, while soya bean and ground-nut production has greatly increased) or because an adjustment is needed in the relation between the prices of commodities and the prices of other goods, for example, manufactures. Relative changes might be reviewed perhaps every three or five years. A table might be drawn up showing the ratios of the quantities in the commodity unit to the quantities of production for the market in the monetary area concerned during the preceding three years. These ratios would be equal in an ideal commodity unit; a deviation of, say, 25 per cent from the average of the ratios might be taken as a signal for action, either by altering the quantities in the commodity "basket" or by substituting one commodity for another. The signal for substitution or addition might be that the value of the production of a commodity outside the group has for three years exceeded by 20 per cent the value of the production of the smallest commodity in the group.

209. Rules of some such kind would help to make changes possible without arousing strong activity by pressure groups. Transitional problems would arise at each revision, and these require further study.

210. The other form of adjustment would probably become necessary because of the resistance of the economic system to adjustment by cutting the incomes of factors, and the associated inability of governments to control inflation. No monetary system and no stabilization of the price

level of primary commodities can force governments to abstain from inflation if they are unwilling or incapable of doing so. Given stable prices of materials, stability of prices elsewhere requires that the rise in factor incomes should not go beyond the increases in productivity as measured by declining cost prices. If a faster increase cannot be prevented and if a policy of credit restriction cannot be applied for fear of creating unemployment, a tension will be set up and the buffer stock will tend to become exhausted. In this case the only thing to do would be to allow a rise in the price of the commodity unit—a step which would at least have the advantage of making inflation clearly visible, and therefore perhaps easier to control in the future. The possible need for revision should not in itself be regarded as a point against the scheme; it is no more than a recognition of the real need for flexibility in economic life.

Some difficulties of the scheme

211. With the exception of the reference to the need to revalue the commodity unit after inflation, the discussion so far has related mainly to the technical problems of setting up a commodity reserve currency scheme. These problems appear to be capable of theoretical solution after further study, but the merits of the scheme must be viewed in broader perspective. The stabilization of a central group of prices—with the consequent lessening of the fluctuations both of producer incomes and of many other prices—would obviously have a very great advantage. If successful, it could help to achieve a less restrictive attitude, both in national production policies and in world trade. But is it sure enough of success to justify the marked upheavals of thought and practice which it requires?

212. This question we cannot answer, because it seems to us that there are substantial theoretical and practical problems still needing further examination. We are sufficiently impressed by the theoretical merits of a scheme of the general type discussed in this chapter to recommend that this further study should be put in hand—preferably in several different places, including international agencies, central banks and universities—so that a fuller understanding of the matter may grow from the union of many streams of thought. We recommend especially the following points for study.

The desirability of the purpose of the scheme

213. Is the stability of a commodity unit over a period of years desirable in itself, or does economic progress go faster under the stimulus of a slowly rising price level?

The economic prerequisites of the scheme

214. Precisely what economic conditions must be satisfied before a commodity reserve currency system can operate? Do they, for instance, include universal convertibility of currencies?

Habits and relations difficult to modify

215. It is not certain how far the scheme, when modified to soften its impact on the rigid elements of the economic system, would remain ef-

fective. Thus, if the full autonomy of central banks is preserved, may they not use their power to frustrate and distort the policies of the stabilizing authority? If free wage bargaining is permitted, will it be possible to hold wages beneath the limit set by the slow change of productivity, without resort to the discipline of heavy unemployment?

The chance of undesirable side effects

216. We have already noted (paragraph 187) a chance of perverse movements of prices. Would the joint attachment of money to gold and the commodity unit produce the difficulties of bimetallism? Would the degree of variation tolerable in a monetary system be enough to provide inducements to a shift of resources between the making of goods inside and outside the commodity unit? The last question seems to us an especially serious one. Suppose, for instance, that it becomes necessary to move resources to the production of major primary commodities—which at present would be achieved by a rise in their prices relative to the prices of, say, manufactures. With stable commodity prices, the adjustment would require lowering the prices of manufactures, and conceivably also the money and real incomes of people in manufacturing. Are such adjustments likely to be necessary, or can all that is necessary be done by an occasional revision of the scheme?

217. If the scheme requires revision by bringing in new commodities, dropping commodities already included or altering the weights, can the resultant transitional problems be overcome without serious hardship to producers or consumers?

The adequacy of the scheme to achieve its purpose

218. A commodity unit based on a hundred commodities and used throughout the world would clearly have a very powerful stabilizing effect; one based on a single commodity in one country would be weak and ineffective. Somewhere between these two extremes can be discovered a degree of comprehensiveness which is just sufficient to secure effective operation. How is this related to the possible scope of composition of commodity units, as fixed by practical considerations?

219. It may also be asked whether the attractiveness of the scheme as an *automatic* stabilizing device is not seriously compromised by the degree of flexibility that must be introduced in order to make it work in a complex and dynamic world, and by the frequent revisions in the commodity unit and its valuation that may be necessary.

The relative merits of the proposal

220. The commodity reserve currency scheme has to be judged, not only against the present situation but against possible enlightened alternatives. Its advantages lie especially in its automatic operation on an important source of variability. But is it, from the money side, better than other forms of monetary management? It can be argued that success in this field depends more on the quality of the managers than on the ingenuity of the schemes of management; in each country the "managers" include, in a sense, all citizens who share in effective power.

221. This is not an exclusive list of questions requiring study and answer. We found ourselves sufficiently attracted by the scheme to think further effort worth while. This is as much as we, as experts, can say at this point. For obvious reasons, we did not inquire into the problem of political feasibility; but we are not, of course, unaware of it. What the world has to decide is whether the degree of stability to be expected from schemes of this kind is worth the change in habits and thinking which would be required.

Note by F. G. Olano

I wish to state that, though fully associating myself with the ideas expressed in chapter 6, and, especially, with the recommendation for further study of the commodity currency scheme, it is obvious to me that a proposal like this is not now within the reach of practical politics. I have grave doubts whether the system can work satisfactorily in the world as it now exists or is likely to exist in the foreseeable future. The great virtue of the scheme—automaticity—seems also to be its great defect; it may prove impossible to remedy its defect without losing its virtue.

From the theoretical point of view, I agree fully and completely with the objections raised by J. M. Keynes (see *The Economic Journal*, in June-September 1943) which, in my opinion, have not been refuted.

As a practical man, drawing upon my particular business experience, I would have advocated a shorter consideration and analysis of the scheme. But I decided to join my colleagues in the analysis as it stands because of three facts to which I attach great importance:

(*a*) In the discussion in the General Assembly preceding resolution 623 (VII), the representative of one country indicated that a "commodity currency" might be a solution.[8]

(*b*) The presence in our Committee of Mr. Goudriaan—well known internationally as one of the three original sponsors of the scheme—naturally led us to give the proposal a thorough review.

(*c*) Last, but not least, I took into account the high standing and experience of the economists who have sponsored, supported and analysed the commodity currency proposal, including those who are known to be undertaking further review. In any case, I believe that it is not a correct scientific attitude to ignore the scheme simply because one is convinced that its practical possibilities are small, perhaps negligible, and that more practical and immediate measures are required.

[8] *Official Records of the General Assembly, Seventh Session*, Second Committee, Summary records of meeting 218, paragraph 5.

Chapter 7

Compensatory schemes

222. If undesirable repercussions of excessive fluctuations in primary commodity markets are to be minimized, there is one broad alternative to the direct stabilization of prices by means of commodity agreements. This is to arrange for compensatory international flows of money in the event of sharp fluctuations in primary commodity markets. Such "secondary" action, of course, by its very nature does not attack the root of the disturbances it compensates.

Contra-cyclical lending

223. Contra-cyclical lending is the simplest form of compensatory action. It would be confined to offsetting some of the international disturbances created by temporary business depressions in the main industrial countries. These disturbances can be minimized if industrial countries are prepared to maintain the disbursement of their currencies to the outside world at a time when they are afflicted by a business recession. The depressed countries could do this by making extraordinary loans when their foreign disbursements on current account, and perhaps on capital account, have declined as a result of diminished business activity; these loans would be repayable when the flow of currency again reaches a satisfactory level.

224. Contra-cyclical lending of this kind is certainly in the broad interest of all countries. Both lending and borrowing countries stand to gain. In order to give such lending a measure of reliability, it would be necessary to channel it through an international agency, such as the International Monetary Fund, though action by individual governments could of course usefully reduce the amount of lending that needs to be done through the international agency.

225. We do not consider that contra-cyclical lending is conceptually distinct from the present operations of the International Monetary Fund, though it would involve a radical change in scale of action. The Fund is in effect a reservoir of contributed currencies, from which member countries can obtain loans to offset short-period fluctuations in their balances of payments. The reservoir is at present much too small to provide more than marginal help in any major fluctuation, and the management of the Fund has been too timid in using its contents; but that is no reason why it should not be enlarged and become the main source of contra-cyclical lending. It seems to us much more reasonable to proceed by extending the resources of the International Monetary Fund rather than by attempting to create a new international scheme.

226. It is not necessary that the full additional resources should be contributed in advance of any depression, though it may be desirable to make some immediate addition to Fund resources, so that it may be more ef-

fective in dealing with minor fluctuations. One possibility is that the major industrial countries should make advance commitments, formal or informal, to provide additional funds when needed. This would help to prevent an excessive decline of prices and activity, since it would be known that compensatory finance was assured. It would be necessary to define a point at which the flow of a currency had diminished sufficiently for the Fund to call for the promised funds. Provided that the International Monetary Fund pursues a bold and generous policy at all times and does not restrict recourse to its resources to safeguard its narrowing reserves, this point for expansion might be defined as a certain minimum level of the reserves of the particular currency in the hands of the Fund. This might be better than to wait for a statistical demonstration of the reduced flow.

227. Even if governments are unwilling to make advance commitments to augment the resources of the International Monetary Fund, we think it likely that, if the Fund were committed in principle to a policy of contracyclical lending, it would be able to obtain extra resources when its lending of a currency had reduced its reserves of that currency to a low level. We therefore suggest that the Fund should declare its intention of using its resources boldly to maintain the flow of currency if a major industrial country is involved in depression; and that it should indicate its intention to seek an increase in its resources when its reserves of a currency reach a certain minimum level, and to negotiate with major member States to see how far such increases can be pledged in advance.

228. We consider that it would be unwise to go beyond this in giving precision to the scheme. Amendments to the rules of operation of the Fund might be needed, but the changes should be left to arise naturally from experience. The opportunity might serve to attract additional members. We believe that it is already possible to vary the Fund's scale of charges to some extent; it could perhaps provide that during the operation of the extended facilities, it funds could possibly be made available at low interest or no interest, but that higher interest will be required when the flow of the currency concerned has been restored to a normal level. But we would not think it desirable for the Fund to commit itself to precise rules governing the expansion of its activities during a depression; the exercise of judgment will be needed, not only to allow the necessary flexibility in meeting varying circumstances, but also to give the Fund some power to discipline recalcitrant members.

229. We see no reason why the industrial countries should fail to agree to a scheme of this sort. The effect on their economies, though it might be small, would be in the right direction; and they have a strong voice in the management of the Fund. Since Fund assistance is short-term and repayable, there is no reason to expect that primary producing countries would abuse the system by asking for too much. But they would be protected against at least some of the injuries dealt them by the gross instability of primary markets. In the past, business fluctuations in economically advanced countries have figured as the chief, although by no means the

sole agent of extreme ups and downs in primary commodity markets. International compensatory schemes cannot, of course, directly protect the primary producer against slumping prices and incomes. However, once contra-cyclical finance is made available promptly and on an adequate scale, the primary producing countries are in a better position to foresee what their foreign exchange resources will be and to plan their use for purposes of economic development—a condition to which the terms of Assembly resolution 623 (VII) make particular reference. The decrease in uncertainty, and the enhanced availability of foreign exchange in times of market depression, should prevent an interruption of developmental investment because of extreme fluctuations in export proceeds. At the same time, the need to repay contra-cyclical credits may serve to curb excessive commitments when commodity markets enjoy boom conditions.

230. There are also a number of indirect benefits. Timely contra-cyclical transactions should make business recessions in industrial countries somewhat less severe and prolonged than they would be otherwise. They would also impede the spread of depressive impulses throughout the world. Such indirect effects would thus tend to diminish the depressive impact on primary commodity markets to which the latter have been subject in the past.

231. As an alternative to international commodity stabilization, contra-cyclical compensation has two great virtues. First, it does not require direct control over numerous commodity markets, many of which are in any case unsuited to specific stabilization measures of any kind. And yet it covers all commodity markets in certain respects. Prices are left free to change, and there is no problem of foreseeing the price which will equate demand and supply in the longer run. There is no need for complicated formulae and their frequent revision. Secondly, there is no need to discover and rediscover the points at which the interests of numerous countries coincide in commodity markets. What contra-cyclical compensation can accomplish, it can accomplish without straining man's capacity to predict, without the risk of unduly interfering with the allocative function of prices, and without the impasse and frustration of unending negotiation.

232. These virtues are, of course, bought at the cost of uncertainty as to just how far contra-cyclical lending would help particular countries or particular groups of primary producers. But it need not be considered simply as an alternative to direct action in the commodity field; the two types of arrangement can supplement each other, and the scale on which one is used can vary according to the effectiveness of the other.

233. There is some danger that contra-cyclical lending might be in part offset by a fall in loans from the International Bank for Reconstruction and Development. Since the Bank borrows on the open market, there is a danger that it might have to contract its operations at a time of crisis in security markets; and special help from member governments may be needed to prevent this.

234. The Committee wishes to point out, finally, that individual governments can make a further, if minor, contribution to contra-cyclical finance. It would clearly be a help to other countries—especially the primary

producing countries whose foreign exchange earnings tend to be hit hardest by industrial depression elsewhere—if they were allowed to postpone or suspend transfers on account of interest and amortization for loans previously contracted, when a currency becomes scarce because of a depression. The decisions of the International Monetary Fund on the timing of its extended lending, or on the periods during which charges for its facilities are reduced, might be used to define the periods for this postponement or waiver of interest and amortization charges. We feel that industrial countries should seriously consider the systematic application of this principle in public lending.

Automatic compensation schemes

235. We also considered compensatory schemes which would operate more automatically, involving unconditional transfers of money between nations rather than loans, and determining the amounts to be transferred by a precise formula. Changes in the terms of trade suggest themselves for the practical application of this idea. Under circumstances to be defined, countries which gain from a shift in the terms of trade would be called upon to make compensatory payments to countries which have suffered income losses from the same shift. In exploring the possibility of applying this idea, the Committee was guided by the following principles:

(*a*) A compensatory arrangement of this type should not interfere materially with the terms of trade as they evolve over a long period. Its purpose would be to provide for international transfers of income in compensation for such short-term shifts in the terms of trade as are regarded as injurious (on balance) by all trading countries.

(*b*) We wish to emphasize at the outset that international compensation should not be undertaken for secular changes in the terms of trade. Rather, compensation should be limited to short-run, extreme fluctuations of the terms of trade which are generated by short-run disturbances in the conditions governing the demand for, and supply of, internationally traded goods. Such sudden, massive and relatively short-lived shifts in the terms of trade of a country are often due to changes in the ratio between the prices of primary commodities and those of manufactured articles.

(*c*) Even extreme fluctuations in the terms of trade should only lead to partial compensation, so as not to give too much weight to anomalous conditions unconnected with broad changes in supply and demand, and so as to reduce the incentive to manipulate the terms of trade (and hence the compensatory transfers) by artificial means for national advantage.

(*d*) While it is conceivable that the terms of trade to be stabilized (over the short run) ought to be the terms of trade between *classes of commodities,* such as primary goods versus manufactures, or between *groups of countries,* such as economically developed versus economically underdeveloped countries, the Committee considers that compensatory arrangements of this kind would be impracticable. The operational difficulties would be insurmountable. We feel that the only administratively feasible scheme is to let the actual changes in the terms of trade during a certain

period, presumably a year, determine the two groupings of countries between which compensatory transfers would take place. In essence, the arrangement would then amount to a mutual insurance scheme giving all countries partial protection against abrupt and substantial fluctuations in their terms of trade.

236. Even a basically simple insurance arrangement will give rise to difficult problems. Technical solutions to these difficulties can be found if the insurance plan is wanted. There is one difficulty, however, which merits separate discussion. If we want to moderate, in their income consequences, short-term fluctuations around secular changes in the terms of trade, it is necessary to give operational expression to "the long-term trend". This is a crucial difficulty which must be faced in all commodity stabilization schemes; but in this case the whole of international trade is involved. This difficulty has to be met at two stages. Initially, member countries must agree on what the "standard" terms of trade are. Then, if interference with secular changes in the terms of trade is to be avoided, these "standards" must be revised from time to time.

237. No *expertise* is able to determine what the "standard" terms of trade should be at any given period of time. The average of a past period can only afford limited and inconclusive guidance. The choice of any recent period can be attacked on the grounds of distortions resulting from highly abnormal conditions. The longer the past period considered, the less conclusive are changes in the statistical indices. Yet it may markedly affect the international redistribution of income over a period of time if the initial standard selected is a few points higher or lower. Precisely the same difficulty arises when, for fear of interfering with secular changes in the terms of trade, it becomes necessary to readjust the standard. If there is a continuance of such highly erratic fluctuations in the terms of trade as have occurred in the past forty years, resort to automatic annual adjustment by means of a moving average of a few years makes no sense, for this procedure would produce too many erratic changes in the standard. Nor, indeed, is it likely that recourse to a formula will solve the problem to the satisfaction of participating countries. The standards, therefore, would have to be renegotiated from time to time, and it must be expected that countries would bargain hard and find agreement difficult to reach. The difficulty of revising the standard for individual countries would be further increased by allowing for the many possible changes in conditions which affect the longer run terms of trade of a single country.

238. Appendix D gives an outline, by one of our members, of an automatic compensatory scheme; the remaining members of the Committee consider that this is an ingenious proposal which deserves further consideration, if this type of compensatory action is to be put into practice. Statistics of the terms of trade of individual countries would be collected by a central office. No compensation would be payable or receivable for movements of a country's terms of trade between 90 per cent and 110 per cent of the standard; outside that range, compensation would (subject to adjustment to make the scheme self-balancing each year) be designed to cover

half the loss (or take away half the gain) caused by the *additional* movement outside the 90 to 110 range.

239. A possible alternative would be to make a direct estimate for each country of its gains or losses from price changes, by taking the difference between the balance of visible trade for a year and the same balance when all items are valued at the unit values of the previous year. Provided that countries value trade at the same point in its movement, the sum of these gains and losses for the whole world would be zero; they could therefore be used as the basis for a self-balancing compensatory scheme providing for the payment of, say, one-third of the gains to a fund which would then cover one-third of the losses.

240. Balancing the probable merits, difficulties and shortcomings of automatic schemes for compensatory transfers, we feel that we cannot advise giving priority to this way of solving the problem of unstable prices and incomes. Considering that compensation received would cover only a minor fraction of income losses due to adverse movements in the terms of trade, and that even this limited compensation would be received with a considerable delay, we believe the prospective benefits would be overshadowed by the painful, and perhaps fruitless, process required for agreement on "standard" terms of trade. However, should nations prove unable to agree on other arrangements for moderating either the excessive fluctuations of prices and incomes or the ill consequences of these fluctuations, then they might do well to take a second look at automatic compensatory schemes.

Chapter 8

National measures

241. There are two ways in which we feel ourselves concerned with national policy. First, an attack on the extreme instability of primary commodity markets and its upsetting consequences requires national as well as international action. Secondly, General Assembly resolution 623 (VII) requests us to make practical recommendations concerning the adoption of national measures affecting the prices of primary goods entering international trade and the terms of trade of economically under-developed countries.

National measures for stabilization

242. Whatever international measures are actually adopted for curbing extreme fluctuations in primary commodity markets, or for compensating for some of their harmful consequences, they cannot absolve governments from contributing to stability by their national policies. Indeed, excessive concern with *international* measures might be dangerous to stability if it distracted governments from proper attention to the consequences of their total behaviour in the field of economic policy. This is so not only because wide fluctuations of employment in the industrial countries would put international measures to a severe test, or because policies tending to create instability in the primary producing countries would render them incapable of profiting from international stabilization schemes. There is also the possibility that, in the near future at least, international measures will be applied too timidly to exert a broad influence towards greater stability. Moreover, we find it difficult to conceive that international measures with sufficient impact will be taken unless governments accord a high priority to the objective of stability. This they will hardly do in their foreign economic policy unless they do so also in domestic policy.

243. A process of steady economic growth in the industrial countries would in itself, of course, greatly diminish the short-term instability of primary commodity markets and lighten the burden placed on international stabilization devices. It should be noted, however, that it is not only short-run fluctuations of employment that must be feared for their effects on commodity markets; economic stagnation, even at relatively high and stable levels of employment, would be of far less benefit to the primary producing countries than economic stability combined with steady progress in the highly industrialized nations.

244. We could rightly be accused of prejudice, however, if we did not point with equal emphasis to the need for domestic stabilizing action on the part of primary producing countries in general, and economically under-developed countries in particular. In chapter 3 we have explained the special vulnerability of most under-developed countries to extreme fluctua-

tions in primary commodity markets, and the low capacity of these countries for coping by national measures with the internal consequences of external disturbances. It is for these reasons that these countries can advance strong claims to have the extreme instability of primary product markets, or the harmful repercussions of that instability, moderated by means of international measures. Nevertheless we feel that neither reason provides an adequate excuse for failure on the part of under-developed countries to take appropriate national action or to improve their ability to do so. Through such action they can contribute substantially to their own internal stability, and can lay more solid foundations for balanced economic growth.

245. In order to keep their economies reasonably balanced, the governments of economically under-developed countries must obviously keep a close watch on their trade, fiscal, monetary and investment policies. When foreign markets enjoy boom conditions and export earnings rise, inflationary forces must be kept in check through appropriate monetary and fiscal measures. There is no reason to assume that a policy of monetary restraint, if carried out on a selective basis, would retard the expansion of productive enterprise. It is, however, necessary to curb investment projects which, though profitable to the investor, do not contribute to real economic progress; and it is equally desirable to limit indubitably useful investments to a scale that can be maintained when export proceeds decline. It is surely wasteful to start, in boom times, investment projects even of high priority if they may have to be interrupted or abandoned when the boom collapses. What counts is not the start but the completion of investment projects. Such a policy of restraint in boom times will also relieve the pressure on the balance of payments which must otherwise result from inflation. Foreign exchange reserves can then be built up more easily to be available when export earnings are in a temporary slump. Furthermore, if a budget surplus is maintained under boom conditions, public expenditures are rendered more stable over time and this should prevent an increase in inflationary pressure when foreign markets are temporarily depressed and revenues decline.

246. In this connexion, we wish to repeat our warning stated in chapter 3, paragraph 45. Increased export earnings by economically under-developed countries afford only an *opportunity* for financing more rapid economic development. They do not automatically increase net investment. The rate of development is a function of two factors: the productivity of new investment and the proportion of income that is saved and invested in the country. Income will expand when export prices rise in relation to the prices of imports and the effects of this change in prices are not offset by a fall in the volume of exports. But since this change increases the money income of producers, it may increase consumption rather than investment. Economic development will be furthered only to the extent that the increase in money income is saved and invested in productive projects. To seize this opportunity is entirely up to the under-developed countries themselves. But, as we have also explained in chapter 3, it is especially difficult

for these countries to exploit the opportunity; and one reason for this difficulty lies precisely in the extreme instability of primary commodity markets. It is true enough that the external equilibrium of such countries depends upon their internal equilibrium. Yet the reverse is equally true.

247. Domestic policies designed to prevent the dissipation of investment funds, public revenues and foreign exchange earnings at boom times—and hence to assure continued investment at times of falling export proceeds—may be reinforced by the establishment of buffer funds such as those operated by the Canadian Wheat Board or the marketing boards in British West Africa, or the Copra Stabilization Fund in Indonesia. A buffer fund is set up chiefly to stabilize the prices received by primary producers. The fund is managed by a single buying agency, which buys a primary commodity at a set price and sells at the varying world market price. Except incidentally, it does not hold commodity stocks. It accumulates money reserves in good years, which are drawn on in order to maintain the producers' price above the world price in bad years.[1] The fund must start by accumulating reserves during a period of high prices (or else receive outside finance). The reserves would have negative (money) carrying costs and thus, unlike commodity buffer stocks, would be no embarrassment however large they became.

248. We do not claim that the administration of such funds has always been exemplary, that their operation is not beset by complex and difficult operational problems, or that political pressure may not pervert their legitimate purpose. For example, the price policies of the West African produce marketing boards have been far from stabilizing in their effect, and the boards have been severely criticized for exploiting producers by accumulating large reserves. But if these problems can be minimized and short-term fluctuations in producers' incomes properly moderated, it is not only the producers themselves who are benefited. Such a programme should also contribute materially to preserving domestic monetary stability.[2]

249. All previous experience underlines the danger of national buffer stocks maintained by an individual producing country as a stabilizing device. Since their managements are invariably under strong political pressure to stabilize prices at a level higher than world market prices, they must either finance ever accumulating stocks or restrict production. If the country concerned is an important exporting country, it may succeed for a time in obtaining higher average prices than would otherwise prevail in the world

[1] Some single buying agencies distribute their profits to producers each year. They are, therefore, unable to hold producers' prices above the world price for long; their main function is to help producers by guaranteeing a minimum price in advance.

[2] We have also explored the possibility of international buffer fund agreements between several primary producing countries. However, we found this idea unattractive. It would not be easy for individual producing countries to confer on an international authority the great power required, or to subject the exercise of this power to a workable regulation. Furthermore, the allocation of foreign currency proceeds between the participating countries might give rise to serious problems. Finally, the chief attraction of an international rather than national buffer fund would lie in creating a monopoly power to be used against foreign purchasers. If this happened, buffer fund agreements would merit the same criticism that we advanced against international quota agreements in chapter 5.

market. The usual consequence, however, is to stimulate production in other areas, encourage the development of substitutes, discourage consumption, and ensure the early collapse of the buffer stock.

250. To implement the policy proposals mentioned in the foregoing, and to integrate them with current and future investment projects, government policies will have to be co-ordinated in an efficient manner. In this sense certainly, economically under-developed countries need integrated national programmes as recommended in General Assembly resolution 623 (VII), section 3. This does not mean, in our opinion, that the national economy must be subjected to ubiquitous government controls more or less in conformity with a detailed blueprint. What is required has been well put in the eighth annual report of the International Bank for Reconstruction and Development.[8]

> ". . . a stringency of financial and technical resources does means that the government should exercise its influence consciously and consistently rather than inadvertently and sometimes at cross-purposes with itself. A useful instrument in this regard is a broad development programme which looks ahead for a period of years, sets out major goals in production and investment, and provides a guide to government decisions on policy, on approximate magnitudes of public investment in different sectors of the economy, and on the choice and timing of individual projects."

We fully associate ourselves with this recommendation. But we are also aware of the numerous obstacles that must be overcome if this prescription for government policy is to be honoured in practice. What is needed perhaps even more than immediate programmes for government action, is the speedy development of the administrative resources and of the political consensus without which such programmes can be neither soundly conceived nor successfully carried out.

251. We recommend to all countries, whether economically developed or under-developed, a further stabilizing practice. We have pointed out in paragraphs 57 and 58 that the markets for, and prices of, a great many capital goods of the heavy engineering kind have been as much subject to violent fluctuations as are the markets for, and prices of, primary commodities. Railway equipment, including rolling-stock, harbour and airport installations, equipment for the generation and transmission of electrical energy, and several other kinds of machinery are of this type. Instability in these markets could be moderated if contracts were spread more evenly over the cycle of boom and depression. The normal way for purchasing such goods is through contract bids, with a fixed delivery schedule, and with the price determined by competition among bidders. One way of stabilizing this market appreciably would be for buyers to fix specifications, make a firm buying offer in terms of price, and wait until a supplier is ready to take the offer. Producers may have little interest in these standing offers as long as their market is strong. When the market becomes depressed, however, and producers begin to be saddled with unutilized capacity,

[8] Page 10.

they are likely to take up such orders at fairly low prices. Indeed, the prices, though fully covering the producer's variable costs, might need to cover only part of his fixed costs.

252. To increase the effect of this proposed change in the marketing of suitable capital goods, pools of standing buying offers might be established by governments or associations of interested business enterprises. In any event, governments are now nearly everywhere important buyers of the kinds of engineering products under discussion, and they are in a position, therefore, to give immediate effect to our recommendation.

253. This change in buying practice could help to stabilize prices and the volume of production in the markets for these capital goods. It would act as an automatic stabilizer, with new, relatively low-price offers being accepted as the market slackens, and with boom markets less strong than they would be otherwise. The degree of stability which could be achieved in this way is, of course, limited by the extent to which the purchase of such items of equipment can be deferred. This extent may not be large, especially in economically under-developed countries where the initiation and completion of one investment project is frequently required to support others, and where the timing of purchases is thus prescribed by a comprehensive pattern of planned investment. Yet there is often some room for postponement, and this is eminently so when purchases are for capital maintenance rather than new investment. Since, on the whole, renewal of plant or equipment lends itself more to postponement than does expansion of capacity, it is notably the more developed countries which can adopt the proposed change in purchasing practice with broad effects. Nevertheless, the economically under-developed countries would likewise profit from it directly and indirectly.

National measures affecting the terms of trade of under-developed countries

254. General Assembly resolution 623 (VII) requests governments to "duly consider the effect of such measures on the terms of trade of countries in the process of development". Throughout our report, we have stressed the special vulnerability of under-developed countries to sharp disturbances in primary commodity markets and, hence, their justified claim to special consideration in matters of international economic policy. The interdependence of national interests, to which we referred in chapter 3, surely reinforces this claim.

255. Our terms of reference require us to recommend practical measures for implementing the Assembly resolution. Yet it is in the nature of the problem that, in this case, practical measures would be impractical. There is virtually no domestic economic policy which does not affect primary commodity markets in one way or another. These policies, moreover, normally reflect strong preferences for certain measures in the countries concerned. To demand that such national measures be either abandoned, or constantly modified for the sake of minimizing disturbing repercussions on the world's primary commodity markets, would be asking interference with

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national policy-making to an extent that few industrial countries are willing to contemplate. We find it, in fact, difficult to conceive that economically under-developed countries would accept similar inroads on their freedom of action. There is a further difficulty which has induced us to be restrained in this matter. The possible effects of specific domestic measures on primary commodity markets are so diverse, and depend so much on the circumstances of each case, that it would be extremely difficult, to say the least, to make any concrete recommendations.

256. In the following, we single out some particular domestic policy measures which, if taken by industrial countries, must be expected to impinge upon the terms of trade of the economically under-developed countries. We fully recognize that other measures—such as monetary and fiscal policy—may have still more powerful effects of this kind. But we can hardly be expected to dwell on these in our report. In keeping with paragraph 253, our general recommendation is that, regarding the measures discussed below, economically advanced countries should be aware of their diverse consequences in the outside world, especially its economically under-developed parts, and should be ready to minimize harmful disturbances whenever to do so would not emasculate or unduly complicate domestic policy. In the event of national measures of predictably broad impact on primary producing countries, moreover, industrial countries would be wise not to refuse to consult with the governments of nations likely to be seriously harmed. In a few instances, we have been able to formulate this recommendation in more specific terms.

257. At present, bulk buying of primary products affects several commodity markets. Except possibly to the extent that the bargaining power of under-developed primary producing countries is inferior to that of industrial importing nations, it cannot be assumed that this technique must be necessarily harmful to exporting countries. To be sure, this may be the effect when bulk buying is manipulated to establish monopolistic bargaining power and to use this power for the purpose of lowering prices. Yet bulk buying may also serve the purpose of expanding supplies and, in order to do so, provide a dependable market at attractive prices. We cannot propose any operational principles for the use of a technique which can be employed for a variety of purposes and whose precise effects are not predictable.

258. The stockpiling of primary goods in order to provide for possible war-time scarcities is likely to affect in several ways the position of the economically under-developed countries exporting such products. During the build-up period, the increase in amounts demanded must tend to improve the terms of trade of these countries and will almost certainly increase export proceeds. If the accumulation is precipitate, however, the ensuing shortage may engender price rises so sharp that, although favourable in their impact on the terms of trade of the exporting countries, they may be highly disturbing to domestic stability and impose on them grave problems of adjustment when stockpile purchases are suddenly reduced or stopped altogether. It must be realized, however, that importing countries,

when building up stockpiles, are acting under dictates of security policy so urgent that conflicting considerations will necessarily be ignored. Yet primary producing countries also stand to suffer substantial injury if such stockpiles, once accumulated, are suddenly liquidated and thrown on the market. In fact, the very possibility of such an event in the future tends to make traders jittery and may depress markets. To counteract these undesirable effects, we recommend that stockpiling countries state publicly and unambiguously their intention to liquidate stockpiles only gradually and, preferably, after consultation with primary producing countries vitally affected by such liquidation. This practice, needless to emphasize, is also in the direct interest of the stockpiling country, since sales will be made at a better price if they proceed slowly and are undertaken when markets are strong. Nor can it be argued that the unloading of strategic stockpiles is governed by urgent security considerations; there is no compelling reason, therefore, why stockpiling countries should then hesitate to cooperate with affected exporting countries.

259. Our recommendation to give public assurance to liquidate large national commodity stocks only gradually, at a time of strong market demand, and preferably in consultation with important exporting countries, applies also to stocks that have accumulated as a result of national schemes which raise the prices received by producers to a level higher than world market prices.

260. When certain primary products are extremely scarce, importing countries sometimes ration their industrial consumption; when this happens at a time of strong inflationary pressures, industrial countries may also impose ceiling prices on imported primary products. It is again obvious that such policies must affect the prices and export earnings received by the exporting nations, and this is a consequence of which the countries adopting these controls should take due cognizance.

261. The development of new materials has entailed in the past, and must be expected to entail in the future, serious disadvantages to certain under-developed countries heavily dependent on the export of competing natural products. This is an inevitable consequence of technological innovation, which will in the long run benefit also the under-developed countries considered as a group. We are strongly opposed to retarding technological progress for the sake of avoiding the pains of adjustment which inevitably attend progress. Even when the development of substitutes is encouraged by public subsidies in one form or another, we see no practicable way of relieving the world of the resulting difficulties. Industrial countries are not in the habit of following such a course unless there are weighty reasons. It would be unfortunate, on the other hand, if the industrial countries pursuing such measures were indifferent to the consequences on the welfare of specific under-developed countries whenever these consequences are of sudden and massive impact. In that event, the wealthier countries would do well to give the primary producing countries special assistance in shifting resources to more profitable fields of production.

262. Importing countries frequently place imports of primary products at a disadvantage, compared with domestic production, by means of import restrictions and subsidies to domestic producers. It is possible that the maintenance of high trade barriers, especially since the nineteen-thirties, has tended to render the terms of trade of primary producing countries less advantageous than they would otherwise have been. It would be out of all proportion for us to suggest that the world rid itself of excessive trade restrictions for this particular reason alone. There will be cases, however, when the imposition of trade restrictions will have especially serious effects on particular exporting countries, and when these effects should become the subject of inter-governmental consultation and, perhaps, regulation. Machinery for this purpose already is provided in the General Agreement on Tariffs and Trade; all that is necessary is that full use be made of the machinery and that a general desire be developed to make it work.

263. Finally, the development policies of under-developed countries have an obvious bearing on the prices at which they export primary commodities. By increasing productivity in general, economic progress will enable these countries to export at lower prices and yet derive larger returns from their exports. It must not be forgotten that the commodity terms of trade are only one determinant of the gains from international commerce. When productivity rises, the real rewards of the factors of production may rise also even though the barter terms of trade remain unchanged or deteriorate. On the other hand, if under-developed countries deliberately reduce output available for export, or keep it from increasing when world demand is rising, they may conceivably increase their export prices. But this will happen at the expense of a profitable expansion of the volume of trade, and probably also at the expense of efficient resource use.

264. Although we have been able to make few specific recommendations, our main conclusion is that, in the pursuit of domestic policies, countries should be aware of the possible harm that may be visited on other countries; and that they would be wise to minimize these effects whenever they are likely to be of significant size.

PART III. CONCLUSIONS

Chapter 9

Main conclusions and recommendations

265. We suggest in conclusion that it is important to remember what the various stabilizing devices can be relied on to achieve, and to proportion the measures taken to the degree of stabilization considered desirable.

266. Single-commodity agreements can prevent excessive short-run fluctuations in the price of the commodity. If, however, by design or accident, they are used to hold in check the long-run movement of prices, they will either break down or be maintainable only by restriction. We consider that restriction is wrong except in rare special cases.[1] Otherwise the choice of the type of agreement seems to us to depend largely on the special circumstances of the case. Provided the problem of finance can be solved, we think buffer stocks for individual commodities, or for a group of them, to be preferable to multilateral contracts. However, the nature and secular movement of particular commodity markets may render them unsuitable for buffer stock schemes while multilateral contracts may promise a measure of stability.

267. At present, we see no grounds for confidence that agreements for single commodities will be concluded in sufficient number to meet the more general demands of under-developed countries for stability of earnings.[2] While recommending examination of arrangements for the stabilization of several commodities by one agreement,[3] we note that there would still be difficulty in obtaining sufficient short-run stability without imperilling the agreement and without recourse to restriction. Multi-commodity buffer stocks, in particular, would require an ample and assured source of finance, and the management of price policy in relation to them would be by no means easy.[4] While realizing the difficulty of obtaining adequate effectiveness and coverage by either single-commodity or multi-commodity agreements, we do not wish to discourage efforts in either form. If agreements covering a fair number of commodities could be achieved, it would be of benefit to many under-developed countries directly, and to all trading countries indirectly. We also feel that experimentation may well increase the knowledge of governments regarding the operational difficulties we have noted.

268. We consider that there is a useful place for general stabilizing measures, such as the proposal for contra-cyclical lending discussed in chapter 7;[5] this, while by no means giving an assurance of stability for

[1] See paragraph 142.
[2] See paragraph 175
[3] See paragraph 183.
[4] See paragraphs 148 to 160, 184 to 188.
[5] See paragraphs 223 to 234.

particular commodities, would help to mitigate some of the worst effects of general cyclical movements. We also outline in that chapter [6] schemes for automatic compensation of large short-run changes in the terms of trade. These schemes might be considered as a possible means of providing compensatory finance if other measures are not adopted.

269. Some help could be expected from the national measures discussed in chapter 8. These are of two kinds. First, there are ways in which nations can, by measures within their domestic jurisdiction, help towards greater stability; such measures include the establishment of buffer funds [7] and a smoothing of the flow of contracts for heavy engineering goods.[8] Second, there are ways in which nations can be encouraged to avoid causing violent disturbance to the economies of other countries.[9] We also note the need for efficient co-ordination and integration of public policy in order to achieve economic development.[10]

270. Effective stabilization may well require the simultaneous adoption of national and international measures, and general schemes as well as those special to particular commodities. In this difficult and complex field, no action which helps towards the right result is to be despised, even if it is in itself incomplete and of limited effectiveness. If, however, governments wish to have an assurance of as much stability of price relations as is consistent with economic change and progress, then we are convinced that they must look beyond schemes relating to particular commodities and review the general structure of the world's monetary systems. It is, of course, beyond the scope of our report to explore all the various possibilities for monetary reform. We have, however, examined one of these alternatives because of its close linkage with primary commodity prices: this is the "commodity reserve currency" scheme. The Committee did not reach full agreement on the theoretical merits and difficulties of this proposal, nor on the question of political acceptability. But we were agreed that the scheme deserves more study than it has so far received. We reiterate that governments should realize that the degree of stability which (to judge from United Nations debates) many of them desire will not be achieved solely by a conglomeration of partial measures.

271. We have noted points which require further study. But we consider that the grave and long-standing problem of instability in primary commodity markets calls for immediate, effective and co-ordinated action; and we have given thought to the first steps needed to achieve such action.

272. We have reviewed the existing machinery for considering commodity problems—including the Economic and Social Council itself and its regional commissions, the Interim Co-ordinating Committee for International Commodity Arrangements and its associated study groups, and the Food and Agriculture Organization and its Commodity Policy Committee. We note that there is no special provision for commodity stabilization

[6] See paragraphs 235 to 240.
[7] See paragraph 247.
[8] See paragraph 251.
[9] See paragraphs 256 to 262.
[10] See paragraph 263.

among the functions of the International Monetary Fund or the International Bank for Reconstruction and Development.

273. It seems to us that there is at present no effective international procedure for discussing and proposing action on the general problem of stabilization—a matter which transcends the problems of particular commodities. The present organization is directed towards piecemeal action, commodity by commodity. We do not think that this is sufficient; a general and simultaneous approach to the problem of stability in its many aspects is required. It is possible that a gap in international organization has here arisen unintentionally, through the absence of an international trade organization as envisaged in the Havana charter.[11]

274. We therefore propose that the Economic and Social Council should establish an inter-governmental commission, which we will refer to as the Trade Stabilization Commission. In order to provide permanent representation for the most important trading countries and an adequate rotation of representation for the others, it would probably be necessary to have eight or nine member governments. The Commission would meet whenever it thought fit, but we envisage that it would be necessary to have meetings for a number of weeks several times a year. The Commission's work would stand or fall by the high quality of the representatives appointed by governments; but we think it important also that the representatives should be free to undertake serious and continued work, not limiting their service on the Commission to infrequent brief meetings.

275. We recommend that the Commission should be asked, during its first period of office, to examine suggestions for future organization in this field. We would expect that, as a consequence, the present distribution of responsibility for action, and also the assembly and publication of facts and statistics, could be co-ordinated and improved. We see no reason to expect that an improved and streamlined organization would require any substantial change in the budgets of the international organizations.

276. The Commission would be advisory and not executive, and its main tasks would be as follows:

(*a*) To consider and make recommendations to the Economic and Social Council on general proposals [12] for stabilization, whether they are referred to it by the Council as meriting examination, or originate in the Commission.

(*b*) To report on its activities to the Council from time to time; and when the stability of the world's markets appears threatened, to make prompt recommendations to the Council for appropriate inter-governmental action. Such recommendations would be embodied in reports to the Council, which would also be sent at once to all governments for their information.

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[11] See Final Act, United Nations Conference on Trade and Employment, Havana, 1948, article 72.

[12] These might include proposals of the kind discussed in preceding chapters, but we do not put forward the idea of a Commission as providing an alternative to the discussion of this report in the Council itself.

277. The Commission would, according to usual United Nations procedure, have the advantage of the presence of non-voting representatives of the Secretary-General and of the specialized agencies (the Food and Agriculture Organization, the International Monetary Fund, the International Bank for Reconstruction and Development, the International Labour Office, etc.). It would have the help of these agencies on matters related to their functions, and the assistance of the United Nations Secretariat; we recommend that it should also have the power to seek expert advice from outside the United Nations organizations.

278. The work of the Commission would involve exchanges of views between governments on possible types of action to which they may not wish to appear publicly committed; and there is a very real risk that premature knowledge of the Commission's deliberations would produce harmful effects in the commodity markets. We therefore recommend that, contrary to usual United Nations practice, the Commission should meet in closed session except when it decides otherwise. We would expect that, in addition to the formal meetings, occasions would be required for informal exchanges of view among the representatives of the member governments, meeting in private.

279. We make these recommendations because we are convinced of the importance of the service which such a Commission could render. The realization of this service depends on the willingness of governments to support the work by the appointment of representatives of high standing and quality. The Commission would be useless—or perhaps worse than useless—if governments were not convinced of the value of its work and willing to lend it their full support.

APPENDICES

Appendix A

Important Primary Commodities: Production and Trade, 1950[a]

(Value in millions of United States dollars; quantity in thousands of metric tons)

Commodity	World production [b]			World exports [c]	
		Value assigned for ranking purposes [d]			
	Quantity (1)	Of individual commodities [e] (2)	Cumulative by rank (3)	Quantity [c] (4)	Value [f] (5)
Rice, milled	98,085 [g]	11,200	11,200	4,230	480
Wheat	143,100	9,800	21,000	16,900	1,150
Coal	1,210,000 [h]	9,600	30,600	72,000 [i]	800 [i]
Corn (maize)	130,800	7,400	38,000	4,250	240
Crude petroleum	486,000	7,300	45,300	933,500 [j]	1,870
Pig-iron	113,100 [k]	5,500	50,800	...	...
Cotton, raw	5,410	4,300	55,100	2,800	2,240
Sugar, raw	30,400 [l]	3,900	59,000	8,800 [m]	1,130
Tobacco	2,950	3,200	62,200	570	620
Butter	3,300	2,800	65,000	490	410
Chemical wood-pulp	20,400	2,700	67,700	4,640	610
Barley	46,100	2,700	70,400	2,600	150
Wool (greasy basis)	1,650	2,500	72,900	1,240	1,920
Oats	49,500	2,400	75,300	1,000	50
Coffee	2,190	2,100	77,400	1,780	1,690
Soya beans	18,000	1,700	79,100	620	60
Mechanical wood-pulp	11,700	1,300	80,400	1,020	110
Rubber (natural)	1,890	1,200	81,600	1,860	1,210
Rye	19,600	1,200	82,800	600	40
Copper	2,270 [n]	1,000	83,800	1,440	620
Gold	0.750 [o]	800 [p]	... [p]	...	...
Ground-nuts (shelled)	7,000 [q]	800	84,600	840	100
Zinc	2,110 [n]	600	85,200	460	130
Copra	2,530	500	85,700	1,490	290
Cotton-seed	10,000	500	86,200	380	20
Tea	570	500	86,700	410	390
Aluminium	1,310 [r]	400	87,100	470	140
Cacao	790	400	87,500	760	420
Jute	1,460	400	87,900	1,150	280

Lead	1,550 [n]	400	88,300	780	200
Linseed	2,630	400	88,700	520	80
Olive oil	600 [o]	300	89,000	170	90
Tin	169 [n]	300	89,300	130	250
Flax	190	200	89,500	70	60
Hemp	310	100	89,600	40	20
Palm oil	500 [t]	100	89,700	500	110
Silver	5.5 [u]	100	89,800	...	...
TOTAL		89,800 [p]			17,980 [v]

Source: Statistical Office of the United Nations. Three dots (...) indicate that data are not available.

[a] Not including lumber, hides, fertilizers, meat, milk, cheese and certain oil-seeds.

[b] Not including that of the Union of Soviet Socialist Republics.

[c] Not including those of eastern Europe, mainland China, Manchuria and the Union of Soviet Socialist Republics.

[d] Since national statistics of production are in terms of quantity rather than value, the importance of the production of different commodities cannot be compared unless the quantities are multiplied by factors in a way that will bring them to a common basis. As a rule, both quantity and value figures are available for external trade. In order to obtain some degree of comparability, the factors here used to evaluate the production figures were world export unit values (in United States dollars) covering 70 per cent to 100 per cent of world exports in 1950, with the following exceptions: (*a*) gold is valued at $35 per Troy ounce; (*b*) silver is valued at $0.75 per Troy ounce; (*c*) crude petroleum is valued at $15 per metric ton; (*d*) the value of coal is based on the wholesale price of coal produced in the United States, the United Kingdom and western Germany; (*e*) the unit value applied to pig-iron and ferro-alloys is the unit value of pig-iron exported from the United States, the United Kingdom and western Germany; (*f*) the unit value applied to mechanical wood-pulp is the unit value of mechanical pulp exported by Canada and the United States; and (*g*) the unit value applied to chemical wood-pulp is the unit value of chemical pulp exported by Canada, the United States and Sweden. The export unit values used for copper, zinc, aluminium, lead and tin represent the primary metals. Except for coal, the figures in column 2 have the same relation to the quantities in column 1 that the values in column 5 have to the quantities in column 4.

[e] Rounded to hundred millions.

[f] Rounded to ten millions.

[g] Estimated from a figure furnished by the Food and Agriculture Organization of the United Nations of 150.9 million metric tons for rice in paddy equivalent.

[h] Excluding the production of Taiwan and mainland China (estimated at not more than 3 per cent of world production).

[i] Quantity estimated; value obtained by applying the export unit value of United Kingdom large steam and household coal.

[j] Thousands of barrels.

[k] Including ferro-alloys; excluding the production of mainland China and Manchuria (estimated at not more than 3 per cent of world production).

[l] The production of the Union of Soviet Socialist Republics is estimated at 2.4 million metric tons.

[m] Estimated.

[n] Metal content of ore production.

[o] Excluding the production of mainland China, Romania and some small producers (estimated at not more than 2 per cent of world production).

[p] Value of gold is not included in total value of commodities, nor in the cumulative totals.

[q] Computed as 70 per cent of world production of unshelled ground-nuts.

[r] Primary metal production.

[s] Production varies greatly from year to year (for example, in thousands of metric tons: 1949, 1,200; 1951, 1,500).

[t] World exports.

[u] Excluding the production of Czechoslovakia, Romania and some small producers (estimated at not more than one per cent of world production).

[v] Sum of items shown. Total world exports (excluding those of eastern Europe, mainland China, Manchuria and the Union of Soviet Socialist Republics, and also excluding trade in gold) were valued at $55,400 million in 1950.

Appendix B

Mathematical note to paragraph 187

By J. Goudriaan

RELATIONSHIP BETWEEN THE AVERAGE CORRELATION COEFFICIENT ($\bar{\rho}$) AND THE AVERAGE VARIATION COEFFICIENT (v) OF n COMMODITIES IN THE COMMODITY CURRENCY UNIT [1]

If $\delta_1, \delta_2, \delta_3, \ldots\ldots\ldots \delta_n$ represents the deviation of each of the values $\chi_1, \chi_2, \chi_3 \ldots\ldots\ldots \chi_n$ from its own average, and δ_Σ represents the deviation of the sum from the average of the sum, then:

$$(1)\quad \delta_\Sigma = \overset{n}{\Sigma}\, \delta_1$$

Squared:

$$(2)\quad \delta_\Sigma^2 = \overset{n}{\Sigma}\, \delta_1^2 + \overset{n(n-1)}{\Sigma}\, \delta_1 \delta_2$$

Let all the deltas vary, total these variations and introduce the average value for all squares and products of these variations:

$$(3)\quad \sigma_\Sigma^2 = \overset{n}{\Sigma}\, \sigma_1^2 + \overset{n(n-1)}{\Sigma}\, \rho_{12}\, \sigma_1\, \sigma_2$$

where ρ_{12} is the linear correlation coefficient between the variables χ_1 and χ_2, etc.

In reducing each summation to a product, it should be noted that in the successive terms $\sigma_1\sigma_2, \sigma_1\sigma_3, \sigma_1\sigma_4, \ldots\ldots \sigma_1\sigma_n$, there are consecutively, as the second part of this product, all sigmas, except σ_1. The first factor σ_1 is thus not multiplied by $\overset{n}{\Sigma}\sigma_1 = n\bar{\sigma}$, but by $n\bar{\sigma} - \sigma_1$.

The same holds for all consecutive terms, with the result that:

$$\overset{n(n-1)}{\Sigma}\, \sigma_1\, \sigma_2 = n^2\bar{\sigma}^2 - n\,\overline{\sigma^2}$$

Substituting this in (3), and assuming mutual independence between the ρ's and σ's, the result is:

$$(4)\quad \sigma_\Sigma^2 = n\overline{\sigma^2} + \bar{\rho}\,[\,n^2\bar{\sigma}^2 - n\,\overline{\sigma^2}\,]$$

and thus:

$$(5)\quad V_\Sigma^2 = \frac{\overline{\sigma^2}}{n\bar{\chi}^2} + \bar{\rho}\left(\frac{\bar{\sigma}^2}{\bar{\chi}^2} - \frac{\overline{\sigma^2}}{n\bar{\chi}^2}\right)$$

The known and completely general formula:

$$\bar{\chi}^2 = \frac{\chi^2}{\chi} + \sigma^2\chi = \frac{\chi^2}{\chi}\left(1 + v_\chi^2\right)$$

immediately leads to: $\bar{\sigma}^2 = \frac{\sigma^2}{\sigma}\left(1 + v_\sigma^2\right)$

Next, substitute $\frac{\bar{\sigma}}{\bar{\chi}} = v$, then (5) changes into the still completely general formula:

$$V_\Sigma^2 = \frac{v^2\left(1 + v^2\sigma\right)}{n} + \bar{\rho}\left(v^2 - \frac{v^2\left(1 + v^2\sigma\right)}{n}\right) = \frac{v^2}{n}\left((1 - \bar{\rho})\left(1 + v^2\sigma\right) + \bar{\rho}n\right)$$

The functional relationship between v_Σ and $\bar{\rho}$ may be further reduced to:

$$\bar{\rho} = \frac{n\dfrac{V_\Sigma^2}{v^2} - 1 - v^2\sigma}{n - 1 \quad - v^2\sigma}$$

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[1] In this note a simplified notation is adopted: the first term follows the Σ sign and the number of terms is above the Σ sign. Therefore $\overset{n}{\Sigma}\, \delta_1 = \delta_1 + \delta_2 + \delta_3 + \ldots\ldots \delta_{n-1} + \delta_n$.

APPENDICES

Here $\bar{\rho}$ reaches its maximum $=1$ when v reaches its minimum $= V_\Sigma$, and $\bar{\rho}$ decreases with the increase of $v \to \infty$ to a minimum equal to:

$$-\frac{1+v^2\sigma}{\nu-1-v^2\sigma}$$

This minimum is reached in any case for $V_\Sigma = 0$.

In a concrete example of permanent valorization of a certain complex of raw materials, V_Σ, ν and v_χ are known and v_χ may be used instead of v_σ if the same individual coefficients of variation for all the terms of the sum are assumed for a first approximation; the σ series is then proportional to the χ series, and both series then possess the same coefficient of variation.

If $\nu = 4$–8–16–32 is applied consecutively to the values in appendix A, classified according to diminishing value, then the values given below are obtained for $\bar{\chi}$, $\sigma\chi$ and $v\chi = v\sigma$.

ν	$\sum_1^\nu \chi_1$ (column 3 appendix A)	$\bar{\chi}$	$\sigma\chi$	$v\chi = v\sigma$
4.....	38,000	9,500	1360	0.14
8.....	59,000	7,375	2501	0.34
16.....	79,100	4,950	3020	0.61
32.....	89,300	2,790	3050	1.09

Assume V_Σ to be, for example, 0.025, then the necessary relation between $\bar{\rho}$ and v is given by the figures below.

v = 0.025	0.05	0.10	0.20	0.40
$\bar{\rho}_4 = 1.00$.....	− 0.01	− 0.26	− 0.32	− 0.33
$\bar{\rho}_8 = 1.00$.....	0.13	− 0.09	− 0.14	− 0.15
$\bar{\rho}_{16} = 1.00$.....	0.17	− 0.02	− 0.07	− 0.09
$\bar{\rho}_{32} = 1.00$.....	0.19	− 0.01	− 0.05	− 0.07

Collective valorization, with widely fluctuating commodity prices, offers only the alternatives of limiting the coefficients of variation considerably or of negative correlation.

It is very likely that collective valorization would produce the first alternative. The strong positive correlation is brought about by mass psychological and economic motives which are too powerful to be overturned suddenly. Such valorization also affects all valorized raw materials in the same way; it is difficult to understand how this influence could cause contrary fluctuations. That the maintenance of high coefficients of variation would require negative correlation is clearly shown by the figures given.

The critical value $\bar{\rho} = 0$ yields the relation:

$$v^2 = \frac{\nu}{1+v^2_\sigma} V^2_\Sigma$$

The square root of $\frac{\nu}{1+v^2\sigma}$ therefore gives the factor by which the variation coefficient of the sum must be multiplied to get the individual coefficients of the components which lead to an average correlation of zero.

This square root, for ν consecutively $=$
4 − 8 − 16 −32, takes the values:
1.96 − 2.64 − 3.42 − 3.84
Therefore the individual coefficients of variation can be about 2 to 4 times as large as V_Σ before an average negative correlation occurs.

This confirms that the choice of the margin between the buying and the selling price is of first importance to avoid negative correlations. It should, however, be borne in mind that V_Σ is not identical with this margin. For a small margin, like ± 2.5 per cent, it may probably be assumed that the prices of the unit are mainly either at the upper or at the lower limit and therefore V_Σ will be very close to 0.025. For a large margin, of ± 10 per cent, the price of the unit will for considerable periods remain between the limits, so the V_Σ will be smaller than 0.10; in the case of rectangular distribution it would amount to only some 60 per cent of the margin.

Appendix C

Concurring note on commodity reserve currency schemes

By J. Goudriaan

While I find myself in almost complete agreement with the report of our Committee, I think it useful to carry the analysis a little further by trying to answer the questions in paragraphs 213 to 220 concerning some alleged difficulties of a commodity currency scheme. I fully share the opinion of the Committee expressed in paragraph 33 (*a*) that heavy fluctuations in prices may recur at any moment. Therefore the world should be prepared to meet this challenge right from the beginning. Whilst supporting wholeheartedly the recommendation for further study of the commodity currency scheme, I feel at the same time that no academic study which can be dragged on almost indefinitely should be an excuse for failure to express now certain preliminary conclusions which prepare the way for action in case of need.

The question in paragraph 213, "does economic progress go faster under the stimulus of a slowly rising price level?" is already answered in paragraph 71 (*b*), rightly rejecting "continuous inflationary pressure". This same point of view is expressed very clearly in *National and International Measures for Full Employment*,[1] to which I may refer.

Summarizing briefly the main arguments against sustained inflation I note that:

(*a*) From the production side, "a slowly rising price level" always leads to a misallocation of resources; the tendency "to give rise to high profits" [2] maintains the least efficient (marginal) producers; at the same time the establishment of new enterprises is hampered because "a slowly rising price level" saddles them with higher interest charges than the existing ones.

(*b*) From the side of the distribution of national income, the tendency already noted, to give rise to high profits, implies that the aggregate of real wages and salaries is lowered, and leads to a stimulation of wage demands, magnifying and perpetuating the initial inflationary movement, as is stated in paragraph 71 (*b*) of our report.

(*c*) From the side of terms of trade, sustained and more or less synchronized inflation in the highly industrialized countries leads to an especially high price level for such capital goods as plant and machinery, thereby turning the terms of trade to the disadvantage of the under-developed countries.

(*d*) From the side of the real value of deferred payments, sustained inflation will upset all schemes of pension funds and life insurance. If the pension funds allow for pensions based on a fixed relation to money income during the last period of service, they are brought in constant danger of bankruptcy; if they are, as life insurance schemes, built on the money purchasing principle, the insured persons are robbed of a part of their real savings. A price level "rising slowly"—say 2 per cent per year—means that for an average period of thirty years between payment of premiums and cashing of pensions the real value has declined by about 45 per cent.

(*e*) From the side of stability, a slowly rising price level has no value at all; it can be interrupted at any moment by a more or less autonomous fall in raw material prices and transferred into unintended deflation.

(*f*) From the side of international economic co-operation, a slowly rising price level applied in different countries almost inevitably means that the price levels in these countries are getting out of step. An initial inflationary move, as stated in paragraph 71 (*b*) "magnifies and perpetuates itself"; it easily gets out of control and thus will lead to a series of national devaluations—too well known from recent economic history to necessitate any further insistence on this point.

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[1] United Nations publication 1949.II.A.3. See paragraphs 84 to 88. and 173 to 177.
[2] Paragraph 71 (*b*).

But I agree that the commodity currency, if properly managed, being the most powerful, is at the same time the most promising tool for combating deflation and inflation alike. Governments and scientists in open or hidden sympathy with inflation should, therefore, not give their support to the scheme. But if the protagonists of a slowly rising price level are not afraid of openly proclaiming what they have in mind they may find precisely in the commodity currency a tool which they should not despise. A slow rise—for example, 2 per cent per year—cannot be achieved in a better controlled manner than by raising the price of the commodity unit each year by that same percentage. And it has the very great advantage, stated in paragraph 210, "of making inflation clearly visible".

The only definite question raised in paragraph 214 is whether universal convertibility of currencies is an economic prerequisite of the scheme. The answer to this question depends on whether the scheme is operated by an international buying and selling agency, as outlined in paragraph 200, or by a number of national agencies in the principal countries co-ordinated by an international agreement, as outlined in paragraph 201.

I am, and always have been, in favour of operating the scheme by national agencies [3] for a number of reasons. As a matter of principle, decentralization wherever practicable should always be favoured above centralization, because it is more in line with democracy; at the same time it is the most efficient way of doing things by delegating them to the people "on the spot" with the necessary local knowledge and local authority. Centralization always creates additional problems and in this case almost unsurmountable difficulties, without any essential advantage.

My specific reasons for giving strong preference to national operation of the scheme are the following:

(*a*) The tie-up between the buying and selling of commodities and the usual monetary policies is much better, because the national central bank in each participating country is the agency for both kinds of operations so that their co-ordination is immediately assured.

(*b*) The choice of the specific market for each commodity and the location of stocks is simple and according to the existing channels of trade for each separate country. An internationally operated scheme creates in this respect serious difficulties: either it operates for each commodity only in one local market, thereby strongly favouring that chosen market and damaging all other markets, or it operates in several markets. The latter method, however, creates new problems as to the choice between these markets; it is hardly possible to avoid discriminating in favour of or against certain countries. The commodity unit itself lacks any clear definition as to location, and the arrangement mentioned in paragraph 202, of "world-wide holdings, undifferentiated by location" gives no solution. If a certain country is in possession of certain commodity certificates of this kind, it can clearly not expect to obtain the goods in the desired markets unless the international agency has taken care of stockpiling these goods in these markets, that is, unless the international agency has acted as the aggregate of a number of national agencies would have acted under a nationally operated scheme. If this condition is fulfilled, what is the use of centralization? If it is not, the value of the international certificates in the possession of a certain country will go up and down with the buying and selling of the international agency in the various markets, a new source of friction and unrest added to existing ones.

(*c*) One should not underrate the differences in grades and in prices for one commodity in the main world markets. Even for such a well standardized raw material as electrolytic copper, in the period of free markets variations between prices in three main centres on one and the same day were considerable. There is no virtue in any effort to eliminate artificially these price differences, which are often connected with differences in freight rates, different groups of suppliers and buyers, and similar factors.

[3] The same method was chosen by F. A. Hayek, in "A Commodity Reserve Currency", *The Economic Journal*, June-September 1943, and accepted as an alternative by Benjamin Graham, in his *World Commodities and World Currency* (New York, 1944), page 175.

In case the scheme is operated by a number of co-ordinated national agencies, the answer to the question whether universal convertibility of currencies is an economic prerequisite is that it is not. The last sentence of paragraph 201 applies in this respect.

It should be clearly realized that the problem of stability of commodity prices and that of convertibility of currencies are essentially different. The first is older than our present economic system; the latter is a quite recent acquisition. The latter cannot be solved in any satisfactory manner as long as the first is not put right, as is sufficiently shown in the various paragraphs of our report related to disturbances in terms of trade. But a large step toward general stabilization of national price levels implies at the same time a certain stability in the ratios between the purchasing power of the various currencies; this stability of price levels is the only solid foundation for mutual convertibility of currencies.

The question whether this stability will be maintained depends entirely on national monetary policy; the stabilization of a commodity unit, however, will aid and reinforce any bona fide national policy directed towards stability of the currency.

The international commodity cerificates, because of their ever-changing unit value,[4] are not comparable to gold. One should not aim at establishing their total value at a level somewhat comparable to the value of the present monetary gold stock because this would go against the sound principles given in paragraphs 204 and 205.

The supposition made in paragraph 215 that the full autonomy of central banks is preserved and that they could use their power to frustrate and distort the policy of the stabilizing authority is unrealistic: (*a*) because the full autonomy of central banks (or rather of the governments which control them) no longer exists for all countries participating in the Bretton Woods agreements; (*b*) because this limited autonomy would be limited still further by an international stabilizing agreement concerning commodity units. It is clear that the working of any agreement can be frustrated by breaking it. This needs hardly to be stated. In this particular case, however, the tendency to break it can only be strong when the government involved is not much interested in maintaining the purchasing power of its currency. Such countries, as already noted, should not be participants in a stabilizing agreement.

The second question in paragraph 215, whether it will be possible to hold wages beneath a certain limit without resort to the discipline of heavy unemployment, is already partly answered in paragraph 210. Whether or not unreasonable wage demands will arise and will be acceded to depends largely on the degree of intelligence and self-discipline in each country. I may refer to the recommendations made in this respect in *National and International Measures for Full Employment*.[5] But the fact that a certain restriction of credit will no longer lead to a collapse of commodity prices will remove one of the worst dangers of the present situation. If, besides this measure, a number of pools of orders are established as recommended in paragraphs 251 to 253, a collapse in the engineering trade can also be eliminated.

The real target should be to regulate employment more or less automatically within the 95 to 98 per cent margin and for this aim a further inventive application of the principles given in paragraph 71 (*c*) can pave the way.

The question put in paragraph 216 whether the joint attachment of money to gold and to the commodity unit would produce the difficulties of bimetallism must probably be answered in the affirmative in the case of creation of commodity certificates by an international agency, as previously explained.[6] If, however, the simple solution of a number of co-ordinated national agencies is chosen as advocated, there exists in each country only one kind of money and internationally only one instrument of payment: gold. In that case, as clearly explained in paragraphs 201 and 202, any danger of "bimetallistic" effects is completely eliminated.

The second question in paragraph 216, whether the degree of variation tolerable in a monetary system would be enough to provide inducements to a shift of resources

[4] See sub-paragraph (*b*), page 91.
[5] Paragraphs 87, 88 and 173 to 177.
[6] Sub-paragraph (*b*), page 91.

between the making of goods inside and outside the commodity unit, can only be answered in an accurate sense by actual experience. The risks of acquiring such experience are very small as compared with the risks of the present siuation. In essence one has only to put the simple question: What can go wrong?

Only one of two mutually exclusive possibilities can occur: the stocks may become very large or they may become exhausted. In the first case, assuming that the initial level of stabilization has not been chosen too high, a gradual increase of the price level outside the commodity unit by credit expansion, lowering of the interest rate, and similar measures, will discourage the production of commodities inside the unit, and the rate of increase in stocks will slow down, or even be reversed.

In the second case, protection of the stock will require a relative lowering of the price level outside; this relative lowering can also be obtained by withholding the annual rise in the wage level outside the group, sustained by mild credit restriction, and similar measures. In extreme cases one should not be deterred by falling back on the policy explained in paragraph 210. This, however, should be considered as a kind of safety valve, and no safety valve should blow forever.

It seems to me that in a democratic society the effective technique of stabilization can only be learned step by step and that it may take several years before its possibilities and exigencies are generally understood. But this should not deter us from making a beginning because, as stated above, the risks involved are almost negligible as compared with the heavy risks of the present situation.

The question put in paragraph 217, whether certain transitional problems can be overcome without serious hardships to producers and consumers, may be answered in the affirmative because all these transitions should be made in a gradual and relatively slow manner. They are under control, whilst the present heavy fluctuations mentioned in paragraphs 16 to 18 are completely beyond control.

If, for example, a certain commodity has to be eliminated from the unit, the clearance of the stock is not very urgent; the volume of stock anyway has to be relatively small (see paragraph 204) and even under present unsettled circumstances it is a hard fact of universal experience that no commodity is depressed forever; therefore one should wait for a period of relative recovery of the commodity to get the stock cleared.

The answer to the question in paragraph 218 as to the optimum degree of comprehensiveness of the commodity unit is given by the figures of appendix A. These show that the first ten commodities cover 72 per cent of the total; the first twenty 94 per cent and the first thirty 98 per cent.[7]

Making a choice should not be too difficult. After all, the commodity unit has only the character of a stratified sample from all goods produced to satisfy human wants. The prices of all goods are correlated by numerous ties in their cost elements and the amounts available for the satisfactions received.

Therefore, there is no essential difficulty in deciding to leave out some goods, such as those discussed in paragraph 198; the main thing is to obtain not too large a number of different commodities, which in their aggregate cover a sufficient percentage of the total.

My answer to the question in paragraph 219 whether the attractiveness of an automatic scheme is seriously compromised by periodical revision is as follows.

Automatic operation of the scheme is a good and necessary thing, as explained in paragraph 71 (*c*), for combating short-term fluctuations; these are nothing but a nuisance in the functioning of the price mechanism. Automatism, however, is neither possible nor desirable for long-term adjustments. It is not possible because no mechanism can be invented that adjusts automatically to the unforeseeable events of future ages. It is not desirable because any such mechanism would take the place of human intelligence and withhold it from its legitimate task. And, finally, the speed of action and reaction—so precious in suppressing short-term fluctuations with their calamitous

[7] Leaving out coal, crude petroleum and pig-iron, as discussed in paragraph 198 (*c*), these figures become 56 per cent, 70 per cent and 74 per cent, respectively.

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cumulative effects—is not required for an adjustment to the continuous and relatively slow change of secular development. There is time enough to let this secular change develop until its direction and intensity are sufficiently clear. This is essentially a field for human observation, analysis and decision taking.

Instead of a defect, the combination of automatism in the short run and well pondered human control for the long run seems to me an essential and necessary virtue of the scheme as developed in this report.

The answer to the last inquiry (paragraph 220), whether success in the field of monetary management does not depend more on the quality of the management than on the ingenuity of the scheme of management, is obvious. There is no contradiction and no exclusivity between the two alternatives. We need both: high standards of management and good techniques. The commodity currency scheme maintains all the existing and well-known techniques of monetary management and adds, on top of these, a new one. Therefore the question seems to suggest that a first-class workman equipped with a tool-box containing an extra tool does worse than the same workman without that extra tool. This is difficult to understand.

On the other hand, the implied suggestion that satisfactory results can be achieved towards stability of price level with the existing techniques of monetary management seems to me extremely dangerous; its futility is equally rejected by experience and theory (see paragraph 270 of our report).

The experience of the great depression of the nineteen-thirties has sufficiently shown that monetary management as such is of no avail once a depression has reached a certain magnitude. This is in complete agreement with classical theory, which always advocated combating a depression by means of credit expansion, effectuated by putting the bank rate below the actual rate of interest. But this theory overlooked the fact that in a serious depression the actual rate falls to zero or even becomes negative, when existing production capacity has become too large for effective demand. In this case all existing techniques of monetary management fail, and especially for this case, and for the approaching menace of such a case, the new technique of direct interference in the commodity markets will work particularly well and reliably.

The commodity currency in this respect is nothing but a new tool enriching and reinforcing the existing techniques of monetary management; it works as an emergency governor backing up and reinforcing the everyday governor of traditional credit policy.

Only countries like Belgium, Denmark, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom, which rely for their supply of raw materials largely on imports, dispose of another tool: they can counteract the devastating influence of a general fall in the price level largely by a devaluation of their currencies. This method, however, restricted in its use by the Bretton Woods agreements, is detrimental to the rest of the world. It is of no avail to countries like the United States in which raw material production largely takes place within its own borders. Therefore a universal and in every respect satisfactory solution cannot be found in a return to the policy of free currencies, well known in the period before the Second World War.

On the other hand, as already stated,[8] a policy of fixed currency ratios can only be put on a sound footing after the stability of the various national price levels has been assured.

The last sentence of paragraph 211, speaking of "the marked upheavals of thought and practice" required by the commodity currency scheme, seems to me to be somewhat strongly worded. Unless the achievement of stability itself is qualified as such an upheaval, which hardly can be the intention of these words, the change in practice will be almost unnoticed by the public. The operations of the central banks in the commodity markets will be merged with their usual ones or effectuated by private firms specializing in this new type of arbitrage. The required change in thought is

[8] See page 92.

fairly limited, to a relatively small number of people bearing the heavy responsibility of policy-making.

But even in this case it may be asked whether the change is anything more than a gradual development advancing step by step. Since the Second World War, interest has been sharply concentrated on preventing a serious new depression, and it is an important fact that among the strategic factors to be controlled, if any good result can be achieved, the price level of commodities is generally recognized as of first-class importance. Therefore, interest is already focused on this specific subject, and our report gives a fairly complete inventory of the different methods available for achieving stability. Now it can be clearly seen from this report that all these methods starting from the commodity side are only piecemeal, uncertain in their very essence, liable to all risks of bargaining and withdrawal, and temporary in their very character. Is it really an upheaval of thought to recognize that any approach to the problem of stability of prices is necessarily a piecemeal one and for that very reason defective so long as at the same time the monetary side of the problem is not included? If so, this upheaval of thought has already been achieved in this report, which states so clearly in paragraph 73 that the "dividing wall in peoples' thought" between the commodity approach and the monetary approach has to be "broken down". This thought is further implemented in paragraph 270 with the statement that governments, if they "wish to have an assurance of as much stability of price relations as is consistent with economic change and progress . . . must look beyond schemes relating to particular commodities and review . . . the world's monetary systems".

A critical review of the monetary system should always be based on the three essentially different functions of money: (*a*) to act as a medium of payment; (*b*) to act as an instrument of internationally accepted liquidity; (*c*) to function as a standard of value, that is, to provide a unit of economic calculation. In all countries the first function is served by paper and token money, notes, bills and bank money; the second by gold; but the third function, until now, has not had its own rational instrument.

All techniques of monetary management thus far have aimed to assure a standard of *value* by means which are not related directly to the purchasing power of money but to money acting as a *medium of payment*. This logical inconsistency leads in actual practice to the grave faults described in chapter 2, beginning with paragraph 15. The commodity currency is nothing but a technical remedy for filling the existing gap.

There is nothing artificial or accidental in the commodity currency.

The same requirements, mentioned in paragraph 196, which make commodities appropriate for inclusion in the monetary unit, are also responsible for the extreme instability shown by their prices under a monetary system without a well defined and practical standard of value.

By artificially excluding these commodities from their monetary function we make those same qualities which render them appropriate for monetary use exercise a dislocating influence on their price situation in times of temporary abundance. By this exclusion the strong natural correlations between commodity prices make them fall and rise more or less simultaneously, and these correlations have been until now the worst enemies of general stability; after stabilization of a sufficient aggregate of prices these same correlations will become its strongest and most reliable allies.

The essential antagonism which nowadays exists between money and goods—one appreciating when the other depreciates and vice versa—is not a "natural" fact but an artificial thing resulting from a basic flaw in the monetary systems. The constant, and more or less synchronized, shifting in almost every balance sheet between assets primarily defined in terms of goods and assets directly defined in terms of money, which so largely contributes to general business fluctuations, is only due to this flaw.

The illogical and calamitous fact that a relatively small abundance of goods—in itself nothing particularly harmful—leads to a menace of general disaster will persist as long as this unnatural antagonism is maintained; general and well-assured prosperity will not become possible as long as it has not been eliminated.

Indeed, one of the most alarming developments of the past twenty years is that restrictions on the output of basic commodities are accepted more or less as a normal tool of economic policy. Nineteen per cent of the world's wheat production; 57 per cent of corn output; 14 per cent of barley; 38 per cent of oats; 28 per cent of sugar; 33 per cent of tobacco and not less than 53 per cent of world cotton production are subjected to some form of quantitative restriction, real or potential. No responsible economist can look at these figures without grave concern. They demonstrate a gradual petrification which—if not undone in time—spells the greatest menace for the provision of the steadily increasing population of this world with basic foodstuffs.

If, as is done in our report, one rules out the application of restrictions and recognizes the very doubtful value of temporary single commodity agreements, the only thing to do is to establish buffer stocks. But is a series of unconnected buffer stocks each governed by separate agreements and handled by separate management a more reliable measure than one system of collective buffer stocks tied up with the monetary units?

The last measure is in every respect the simplest, the most trustworthy and the most effective in promoting general stability. It needs only one agreement instead of ten, twenty or thirty; it can even be established by one single country, for example, the United States on its own account.

It does not give rise to endless bargaining and rebargaining because no single price is an element of the agreement; only a kind of index number has to be agreed upon which can be fixed as a certain percentage of an index number of existing prices at a certain moment; therefore the essence of the agreement is fixed in one single figure with its tolerances.

It is the most trustworthy because any breaking away from the agreement will be felt either in a harmful liquidation of stocks or in a general increase in domestic prices; the self-interest of each participating nation will keep it on the right track, which is the soundest guarantee for adhering to an agreement. It has the greatest possibilities because on stabilized purchasing power of national money, defined in commodities, all further national stabilizing measures can be built, such as: (*a*) stability of the exchange value of its currency; (*b*) stability of its engineering industries; (*c*) stability of its building trades, and so on.

A suggestion which I wish to add to the recommendations of our Committee is that the proposed Trade Stabilization Commission (paragraph 274) should give close attention to co-ordinated intervention in a number of specified commodity markets as soon as a specified price index should drop below a certain specified value. The adoption of this suggestion and its public announcement would remove the fear of a price collapse which now looms over the world and is only too well founded in the experience of the past.

Appendix D

A Mutual Insurance Scheme

By F. G. Olano

The general principles on which the following scheme is based are developed in chapters 3 and 7 of the report. In chapter 3, when dealing with the economic interdependence of nations, the Committee stressed the fundamental coincidence of interests in international trade. "In this modern world of interdependence no one is any better off because other people are worse off."[1]

In chapter 7, the Committee stated: "If undesirable repercussions of excessive fluctuations in primary commodity markets are to be minimized, there is one broad alternative to the direct stabilization of prices by means of commodity agreements. This is to arrange for compensatory international flows of money in the event of sharp fluctuations in primary commodity markets".

This approach is based upon a larger and more general consideration. Is it always advisable to insist on dealing with the root cause of an undesirable phenomenon? In fact, the root cause often does not lend itself to direct attack for reasons of political feasibility, or it may be that a direct attack on the root cause will also obstruct its desirable functions or effects. Stabilization of prices can interfere with a more efficient allocation of resources that a variation of these prices could promote.

Often the best policy, in such cases, is to compensate by other measures for the undesirable effects of a root cause, thus leaving its desirable effects intact.[2]

As is outlined in chapter 7, "Changes in the terms of trade suggest themselves for the practical application of this idea".[3]

A practical scheme, that could work along these lines, must satisfy, in my opinion, two fundamental conditions: (*a*) a relatively wide margin must be allowed for changes due to real economic reasons and/or changes of technology and of the structure of production; (*b*) the general lines of a good insurance policy must be followed, reducing the risks, keeping insurance payments to a minimum and applying the scheme to cases where the "law of great numbers" can operate. This means that a considerable number of countries must enter the insurance system, or that a considerable number of commodities and manufactured products must be insured.

With these bases and principles in mind, a system of mutual insurance can be evolved, in such a way that when "unjust, unfair and inequitable" terms of trade result, a compensation payment must be made to the country (or producer) which suffers therefrom.

To reduce the risks and make the system practical it would be preferable to act only in cases of clear "injustice" (on which it is always easier to agree than on what is "just", "fair" and "equitable").

In defining this zone of "injustice", it may be said in a first approach that it begins when terms of trade are less than 90 per cent of a "normal" or "reasonable" basis. It would seem, at first sight, difficult—if not impossible—to define and agree on this "normal" or "reasonable" basis. But when the actual figures covering a long period are examined, it is noticed that no severe consequences occurred when terms of trade

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[1] L. St. Clare Grondona, *National Reserves for Safety and Stabilization* (London, 1939), page 116.

[2] Actually, this principle is widely acted upon everywhere. For instance, in order to preserve the incentive and allocation function of differential wages and incomes, we keep interference with the income-distribution effects to a minimum. But, by means of compensatory measures (for example, redistributive finance, easy credit for investment in private housing, public medical care, and so on) we offset some of the undesirable consequences of relying on the market mechanism.

[3] Paragraph 235.

moved between 110 and 90 per cent of a normal figure, and it is very easy to perceive the periods when terms of trade have been too favourable or unfavourable. On this basis the problem of the reasonable "standard" could be solved without special difficulty. If the adoption of the system depended only on the solution of this problem, then my opinion is that an agreement could be achieved.[4] The basic figure must be agreed upon before starting the system. The "standard" will be changed in special cases which are mentioned later, and it should be revised after five years of operation of the scheme (when it would be useful also to have a general appraisal and revision of the whole system).

The operating principle of this scheme would be as follows: no compensation payment will be made when terms of trade move between 90 per cent and 110 per cent of the "normal" basis. The insured countries will get some compensation payments when their terms of trade fall below 90 per cent. To leave a margin for the operation of real economic factors, it is proposed that not the whole difference between 90 per cent and the actual figure should qualify for compensation but only a fraction of it. (It might, for example, be one-half of the difference. If no problems arise, and, as experience is gained in the operation of the scheme, this fraction could be increased, but it should never be more than two-thirds.)

If terms of trade deteriorate or improve over a long period, five years for example, and if there are signs of real economic causes[5] for it, then a special meeting should be called to establish a new reasonable basis for the calculation of the insurance risk, or to take the commodity concerned out of the insurance system altogether. In that case, "insurance" support will be extended for another period—let us say, for example, another five years—while helping the country to cope with the distress situation through other international means.

How would compensation payments be made? And how would they be used?

Two methods could be adopted. The first would require establishment of a small independent central office, preferably in the United Nations, with the task of calculating the terms of trade between the different countries, and the sums that each country must pay or will receive. Countries receiving payment would be allowed to

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[4] This view is based on a careful examination of the figures for the terms of trade during recent decades (when possible the past forty or fifty years) of Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Cuba, Denmark, France, Germany, India, Indonesia, Italy, Japan, Malaya, Mexico, Netherlands, New Zealand, Norway, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States. In all these cases no special difficulty was discovered, and it is my firm opinion that the margin for a fair doubt about what constitutes a "normal" or "reasonable" level is amazingly small. As illustrative examples, the following "normal" zones of terms of trade are given (terms of trade defined as ratio of export prices to import prices): (*a*) For the United States the "normal" basis would be about 85 (1937 = 100). As a check, the correlation was calculated between the figures for terms of trade and unemployment (1929 to 1940). The computation of the regression equation yields $T = 85 + 1.9\,U$ (where T = terms of trade with base year 1937, and U = millions of unemployed), with a co-efficient of correlation equal to 0.86. If there were no unemployment, the terms of trade would be 85, exactly the same figure as that obtained by other methods. (*b*) For the United Kingdom, the "unreasonable" level would be about 90 (1937 = 100). It is interesting to note that in July 1953, the figure was 91, and that *The Economist* for 26 September 1953 stated: "There is nothing in the present or foreseeable state of world markets to suggest that British export prices could be raised with impunity. And any significant decline in the import price index would be matched by a further drop in the earnings of the sterling area's primary producers, which in turn would almost certainly react on the export trade. Perhaps the stage has now been reached when it will be better for everyone if Britain's terms of trade improve no further". (*c*) For Australia the "normal" basis would be about 100, as in 1937. It would be superfluous to give more figures.

[5] For example, such cases as competition between natural and synthetic rubber or nitrate; replacement of copper or tin with other metals; damage from pests or climatic changes that reduce output; increased demand; production on marginal land or in marginal mines.

use it as they chose with the expectation that under-developed countries would use it for development purposes, and that industrialized countries would use it to meet difficulties in their balance of payments, so that they would be able to maintain or expand their production level and their imports.

The second method, which seems preferable, would be to link—either morally or legally—the payments with the action of an international institution, in charge of international financing of development and international promotion of trade. Such an institution might, for instance, be the contemplated Special United Nations Fund for Economic Development.[6] In this case, the proposed fund or the International Bank could retain one-fourth (or one-third) of all the compensatory payments made, and the "insurance system" thus would serve to provide additional funds (in addition to funds coming from other sources) for international action that is not only greatly needed in itself but would also contribute to improving the unbalanced system of international trade, in this way reducing the risks of the insurance scheme itself.

Having reached this point, it is important to define clearly what it is intended to insure in this scheme. Is it the *total* proceeds from foreign trade or is it the relative prices?

It is well known that proceeds from foreign trade change with variation in the volume of trade as well as with variation in prices. Both can change in the same or opposite direction.

Both the volume and the relative price could be insured, and in the future perhaps ought to be insured. But at the present time, I think it is better to be cautious and not to attempt too much.

Insurance of volume can be taken care of separately when it is due to natural causes.[7] Mr. St. Clare Grondona made a specific proposal in his book quoted above. This insurance can be dealt with through other channels, and perhaps the day is not far off when insurance companies can attack the problem.

At this stage, however, it is preferable to confine the insurance scheme to relative prices. The "affected" country will be the one that receives a smaller quantity of goods than previously for a unit of its exports. The "favoured" country pays a smaller quantity of goods for a unit of its imports. In case governments do not wish—or are constitutionally unable—to enter into an agreement of this type, there is a last possibility. This is to establish "compulsory insurance" for approximately sixty commodities and for the principal manufactured products (approximately 400 to 500) that enter the international market. The "foreign trade insurance" could be taken out at the same time as the "maritime insurance". First calculations make it possible to say that the premium for this extra insurance will normally be about one per cent of the value, rising only exceptionally to about 3 per cent. All the work, including compensatory payments, could be handled through existing private insurance companies, to which a proportion of the premium should be paid for their administrative work. It would, of course, be necessary to have an International Insurance Institute to act as the central re-insurance institute. The profits of this institute, which could start with practically no capital, will first be used for accumulation of technical reserves; later some of the profits could be used to increase the income of the Special United Nations Fund for Economic Development, or any other agency of this type.

In the case of a primary commodity or manufacured product, the price of which is falling as a consequence of economic or technological reasons, the difficulty can be handled: (*a*) by concluding an international agreement for this commodity; (*b*) by raising the insurance premium for the particular commodity; or (*c*) by dropping it,

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[6] Explained in *Report on a Special United Nations Fund for Economic Development*, United Nations publication 1953.II.B.1.

[7] Volume can also be reduced as a consequence of policies followed by particular countries (higher tariffs, quotas, exchange restrictions, and so on). This problem must be solved by other means. It is not possible to insure against the consequences of deliberate action.

after five years of support, from the insurance system. Special problems should be tackled through special mechanisms, and special solutions should be found.

Finally, we want to consider two questions: (*a*) the compatibility of the "mutual insurance scheme" with other proposals; (*b*) the incentives which this insurance scheme will provide.

It is quite clear, as was pointed out at the beginning of this appendix, that the insurance scheme does not deal "with the root cause of an undesirable phenomenon" (instability of prices and/or of terms of trade). Hence, any measure or system that tackles the root causes is perfectly compatible with and welcome to the insurance scheme because it will lower the risks. Thus, commodity agreements, setting up of buffer stocks, and commodity reserve systems whose aim is to stabilize prices, will all help, and in the last resort perhaps make the insurance unnecessary. But if no other measures can be applied, or if these fail, the insurance system will act as a safety valve that could correct, in part at least, the consequences of inaction or failure.

What incentives will the insurance scheme create? The risk to be contemplated is that it may prove an incentive for dumping, or for the devaluation of currencies. But since no action is to be taken for the first 10 per cent of a fall in terms of trade, and since below this point the seller or devaluing country will have to support 50 per cent of the loss, it appears quite clear that there is no such incentive.

Rather, it can be said that the insurance scheme gives a real incentive to refrain from artificial restriction of sales or production and an incentive to expand both. In the same sense, it would provide an incentive, by reducing part of the losses, to arrive at a more normal level of exchange rates, and to refrain from over-valuation.[8] Continuing into the operational details, the following principal problems must be considered.

Calculation of terms of trade

Our fundamental problem—one by no means easy to solve—will be the calculation of terms of trade. The general statistical problems of measuring terms of trade have been well described in appendix A of *Relative Prices of Exports and Imports of Underdeveloped Countries*.[9] "There can be no single true index number of export or import prices. The impossibility of finding and presenting a single true index and therefore a single true figure for changing terms of trade is not due to any deficiency in the statistical data used or the statistical technique employed. It is a logical impossibility."

But while this is true, on the other hand it is also true when practical calculations of terms of trade are made, it is possible to arrive at *upper limits* or *lower limits* according to the method of calculation chosen. The important thing is that almost invariably these limits are not very far apart (normally less than 5 per cent). When the bulk of the trade is considered, differences of results are generally small. Of course, for marginal or special products traded the difference may be important, but these items have very minor influence, and perhaps could be excluded.

My firm opinion is that, while it is logically impossible to arrive at an exact result in computing the terms of trade, the approximate results and major variations have definite meaning and usefulness. A change of, say, up to 5 per cent is extremely difficult to interpret, and may be due to many different reasons. But when a change of 10 per cent occurs, problems and causes generally appear quite clear, and when the difference rises to 20 per cent the picture is unmistakable.

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[8] If it is thought that these dangers are real, it should be recalled that no country which is a member of the International Monetary Fund can devalue its currency without due authorization except within narrow limits. In case of devaluation by countries not members of the Fund, whenever this action is considered unfair, the countries which ought to pay compensation can appeal for a final resolution to the international board proposed later in this appendix. As for the danger of dumping, rules to apply to such cases can be established and agreed upon before the system is started. An offending country would lose its claim to compensatory payments.

[9] United Nations publication: 1949.II.13.3.

With these considerations in mind, it seems preferable that the final calculations should be undertaken not only by the participating countries but also by a central statistical office (logically located in the United Nations). Of course, this statistical office ought to have more authority than is the case at present. For instance, it must have the authority to check and discuss figures and information given by the participating governments as inspectors of insurance companies do in some cases.

A system must be devised for clearing up statistical differences. The following is proposed. (*a*) When the differences between data provided by a country and calculation of the statistical office do not amount to more than 2 per cent, the figures of the country might be adopted. (*b*) When the difference is between 2 and 5 per cent, the average will be taken. (*c*) When the difference is greater than 5 per cent, a re-check must be made, and an agreement worked out. If it is impossible to arrive at a common figure, then the case must be settled by an international board, composed of one member representing industrialized countries, another representing under-developed countries (neither involved in the particular case nor in similar ones) and a third chosen by the Secretary-General of the United Nations. The decision of this board would be final.

Methods of calculation

The methods to be used should be established in the general agreement. I should advise not to attempt to achieve a degree of precision which is not attainable.

Perhaps it will be enough to consider the prices of about 60 to 70 primary commodities and raw materials and perhaps 500 manufactured products. These generally represent about 90 per cent of total trade. Marginal products, luxury and special products can be left out and also products for which no public disclosure is wanted (such as military products). In this way, calculations will be facilitated and the results will be more representative.

Special problems

Apart from minor problems which can be considered in the course of operating the scheme, two are of such importance as to merit consideration at the outset. The first relates to the trade of countries which have dependencies. Should they be treated separately or as one single block? This decision should be left to the discretion of the interested countries which should be able to choose the way they prefer. But after a country's decision is made, the country will be bound by it.

The second problem relates to the case of inter-company dealings, especially if arbitrary prices are established. In principle, if no participating government raises any objection, the prices at which such dealing takes place should be accepted. But if any government considers itself adversely affected and is unwilling to pay compensatory payments, it should be able to put forward its case. First, an effort should be made to get agreement between the countries, but if agreement proves impossible the case should be decided by the international board.

Payments

It is essential to state clearly that this scheme is intended to work in both directions, that is, providing compensatory payments to any under-developed country within the scheme, when the terms of trade move against it, and also transferring payments to an industrialized country when the prices of its imports rise steeply, relative to the prices of its exports.

It should be realized also that for one small country (or a few small countries) the terms of trade may deteriorate (or improve) by more than 10 per cent of the "reasonable" level, while all other countries experience an improvement (or deterioration) of their terms of trade in a much smaller proportion. Even in this case compensatory payments should take place; the affected countries should receive corresponding amounts, to be paid by the other "favoured" countries in proportion to their imports from the first countries. Or vice versa, favoured countries might be asked to make proportionate payments to affected countries even if the deterioration of the terms of trade is less than 10 per cent.

A minor problem to be solved is the establishment of the period for the compensatory payments. Periods of three months or six months or one year can be considered. I think that, at this stage, it is premature to enter into such details. Agreement on this point will not be difficult after more fundamental points are settled. For the same reason, many other details that have been carefully considered are omitted here.

Problem of currencies

In a system of freely convertible currencies no special problem will be present. But supposing that no such system is achieved in the next several years, this problem must be considered. The only possible solution, in my view, is for payments to be made in the currency of the country which has to make the payment (whether or not the currency is convertible).[10] The funds can be used by governments or private firms to buy any product of their choice, with the sole proviso that assurance be given that the commodity bought will be for the direct import needs of the country with unfavourable terms of trade and that the imports are not going to be resold to a third country (except when such resale is freely agreed to).

The fund can also be used in the country for purposes of financial, technical or military aid (as is also provided for in the case in the United States Mutual Security Act of 1953), or can be kept on deposit in the country and used to pay for compensation in a subsequent year when terms of trade move the other way.

[10] The "affected" countries will in consequence receive different currencies, in proportion to their exports to different destinations.

UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

Distr.
GENERAL

E/2438
29 May 1953

ORIGINAL: ENGLISH

Sixteenth session
Item 3(d)

ECONOMIC DEVELOPMENT OF UNDER-DEVELOPED COUNTRIES

Impact of Selected Synthetics on Demand for Natural Products in International Trade

Study by the Secretariat

EXPLANATION OF SYMBOLS

The following symbols have been used throughout the report:

Three dots (...) indicate that data are not available or are not separately reported

A dash (-) indicates that the amount is nil or negligible

A full stop (.) is used to indicate decimals

A comma (,) is used to distinguish thousands and millions

A slash (/) indicates a crop year or fiscal year, e.g., 1950/51

Use of a hyphen (-) between dates representing years, e.g., 1934-38, normally signifies an annual average for the calendar years involved, including the beginning and end years. "To" between the years indicates the full period, e.g., 1947 to 1949 means 1947 to 1949, inclusive.

References to "tons" indicate metric tons, and to "dollars" United States dollars, unless otherwise stated.

Details and percentages in tables do not necessarily add to totals, because of rounding.

INTRODUCTION

1. In resolution 623 (VII), on the "financing of economic development through the establishment of fair and equitable international prices for primary commodities and through the execution of national programmes of integrated economic development", adopted on 21 December 1952, the General Assembly in paragraph 5 requested the Secretary-General "to prepare, for submission to the Economic and Social Council and to the General Assembly, a study on the impact of important synthetic products on the demand for natural primary products entering international trade".

2. The present study, prepared in the interval between the end of the seventh session of the General Assembly and the beginning of the sixteenth session of the Economic and Social Council, is not intended to be an exhaustive analysis of this complex problem; it is rather in the nature of a general examination of the major effects on natural products of the expansion in the production of synthetics. However, it is hoped that this report, which consists primarily of a case study of two synthetic products, synthetic rubber and rayon, and their effect on production, consumption and prices of natural rubber and cotton, respectively, may serve as a basis for further discussion of the problem by the Economic and Social Council, possibly leading to recommendations for international action, should it be considered that such action is needed in this field. It may be noted that the question of the impact of synthetics on the consumption of natural products has been dealt with from time to time in various studies by the United Nations Secretariat in the broad field of economic development of under-developed countries, and will be further examined in future reports.

3. The number of new products which technical advances make available is increasing in many varied fields, and the recent products now meet many different requirements. Although earlier synthetics may originally have been intended only to replace, and not necessarily improve upon, natural products, technical progress in some cases has achieved more than the original aim. A wide range of modern substitute products is now being developed in related and overlapping fields; these include synthetic fertilizers, fibres, rubber and other chemical products.

4. The impact of such products on the demand for internationally traded natural commodities varies in importance. To ascertain the force and the scope of this impact is often difficult, since the demand for the original product may have been affected at the same time by other factors.

Economic significance of synthetics

5. As a result of technological progress, certain traditional raw materials used in the production of manufactured goods have been replaced by products obtained synthetically by chemical processes, which amounts, in the final analysis, to a substitution for some raw materials of other raw materials which are either more economical or more readily available. A large-scale substitution of synthetics for natural products is of course of great economic importance. Not only does it affect established production and consumption patterns in many countries throughout the world, but it also brings about structural changes in the world economy which are not as yet fully realizable and assessable.

6. The reorientation of the demand for raw materials towards new products is a dynamic process. The synthetic products themselves are subject to continuing change through improvement or replacement resulting from still newer industrial techniques. For example, rayon, the chief competitor of cotton, has itself undergone extensive technological changes and now faces the competition of newer synthetic fibres. As technological advancement proceeds, it may be anticipated that new products will continue to emerge, challenging the established position of both the traditional products and the synthetics which have already appeared.

7. Output of natural products is often concentrated in a few countries because of climatic or other conditions; for instance, Malaya and Indonesia produced more than 75 per cent of the total output of natural rubber in 1951. This is one of the factors which has been conducive to the establishment of industries producing synthetics in the consuming countries. In this way they attempt to reduce their dependence on a few producing countries as sources of supply, and at the same time reinforce their bargaining position in the pricing of natural commodities.

Characteristics of the production of synthetics

8. As in the case of other industrial products, the supply of synthetics may be more readily adapted to changes in international demand than that of the corresponding natural products. Output is generally independent of weather and climatic conditions as well as other production hazards which are present in the case of natural products of vegetable origin, such as cotton and rubber. The production of synthetics, however, is sometimes based on natural raw materials, for example, wood-pulp in the case of rayon. Indeed, as mentioned above, the substitution of synthetics for natural products is in fact a replacement of

particular raw materials available at certain prices and produced in certain countries by certain other raw materials which are more abundant and more widely distributed geographically; a substantial increase in demand, caused by the development of synthetic production, may even result in pressure upon supplies and prices of raw materials used in synthetic production.

9. The technological processes involved in large-scale production of synthetics generally imply capital-intensive industries, in view of the required heavy investment in costly equipment. Furthermore, the fact that synthetics are based essentially on scientific research makes the processes particularly vulnerable to technological change, with a resultant great risk of obsolescence. Altogether, high depreciation and obsolescence allowances tend to make fixed costs high as compared with the relative cheapness of the raw materials. While the resulting cost situation is favourable at high rates of output because of the economies of scale, it tends to be disadvantageous to the competitive position of the synthetic product at the earlier stage of development of the industry. In the circumstances, the development of a synthetic under normal market conditions may involve a long period of growth to economic maturity.

10. A different situation arises when the production of synthetics is undertaken either directly by a government or by private enterprise with active government support, for considerations which are to a large extent other than purely economic. Such considerations may include, for instance, the need to overcome difficulties of supply under war-time conditions, or a policy aimed, for one reason or another, at the widening of the raw material basis of the economy. In such a case the stage of carrying the synthetic industry to maturity may be shortened substantially, since considerations of cost and of price competitiveness are generally of secondary importance.

11. It is clear that the competitive position of a given synthetic in relation to the natural product will differ, depending on whether its development has proceeded according to the one pattern or the other. In general, the development of the synthetic fibre industry proceeded along the lines of the first situation described, whereas the development of the synthetic rubber industry followed the pattern of the second.

CASE STUDIES OF TWO COMMODITIES

1. Rayon and Cotton

Increasing use of rayon[1] as a substitute for cotton

12. An outstanding example of the development of a synthetic which competes directly with natural products entering international trade is provided by rayon. Its use as a substitute for natural fibres has made substantial progress, particularly during the past thirty years. First known as "artificial silk", rayon was used chiefly as a substitute for silk in the production of semi-luxury articles which did not require fibres of high tenacity. Furthermore, its high cost of production at the early stage of development excluded its use as a staple fibre for mass-consumed textile goods.

13. Technical advances, however, considerably strengthened its competitive position with regard to cotton. In the nineteen twenties, rayon staple fibre was produced at a much lower cost, and rayon with high tensile strength was successfully developed. It found wide use in the textile industry, mainly for women's and boys' clothing. Its use for many industrial purposes also increased markedly.

Production and consumption of rayon and cotton

14. Increasing uses of rayon were evidenced in the marked upward trend in production, which rose most sharply during the past thirty years.[2] As can be seen in table 1, production of rayon rose from 48 million pounds in 1921 to 3,957 million pounds in 1951, or more than eighty times. The increasing importance of rayon is further seen in the relative share of the two competitive fibres in total world production, as shown in the same table. Starting from less than one per cent of total output of cotton and rayon in 1921, the share of rayon

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1/ The term "rayon" is here applied to all synthetic fibres produced chemically from cellulose.

2/ In the case of rayon, production and consumption figures for the world as a whole are practically identical.

showed a continued increase. The increase was rapid from 1930 to 1939, but slowed down in the next decade. In 1951 the share of rayon was 20 per cent of total world production of both fibres.

15. Rayon production is concentrated mainly in the United States and western Europe. In 1951 the United States accounted for 33 per cent and western Europe for 43 per cent of the world total. In terms of per capita consumption, the United States and Canada had the highest figure, 3.7 kilogrammes, compared with 1.9 kilogrammes in Europe.[3/] In other countries with relatively high income, such as Australia and New Zealand, per capita consumption was 2.4 and 2.3 kilogrammes, respectively, in 1951. In the same year, Latin American countries aggregated 6 per cent, Asia 9 per cent and Africa 4 per cent of world rayon production and had a per capita consumption of 0.60 kilogramme, 0.16 kilogramme and 0.30 kilogramme, respectively.

Table 1. World Production of Rayon[a/] and Cotton
(Millions of pounds)

Year [b/]	Quantity			Per cent of total	
	Rayon	Cotton	Total	Rayon	Cotton
1921.....	48	7,250	7,298	-	100
1930.....	457	12,100	12,557	4	96
1936.....	1,321	14,700	16,021	8	92
1937.....	1,823	17,600	19,423	9	91
1938.....	1,928	13,200	15,128	13	87
1940.....	2,463	13,730	16,183	15	85
1946.....	1,691	9,630	11,321	15	85
1949.....	2,702	14,270	16,972	[illegible]	84
1951.....	3,957	15,730	19,687	20	80

Source: Textile Organon (New York), January and June 1952.

a/ The term "rayon" is here applied to all synthetic fibres produced chemically from cellulose.

b/ Rayon figures are on a calendar-year basis; cotton is shown on the basis of the crop year beginning in the year stated.

3/ Exclusive of the Union of Soviet Socialist Republics.

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16. World cotton production[4] increased at a much slower rate in the same period. It amounted to 7,250 million pounds in 1921, rising to 14,700 million pounds in 1936/37 and to an all-time record of 17,600 million pounds in 1937/38. From 1938 to 1946, the production rate showed a decline which was accentuated during the war. This was followed by a steady recovery in the post-war period, from 1945/46 to 1951/52, with a relatively small setback in 1950/51. The increase in world cotton production in the post-war years was chiefly contributed by the United States and Mexico, which together provided 54 per cent of world cotton in 1949/50 and 46 per cent in 1951/52, as compared with 40 per cent in 1938/39.

17. World consumption[5] reached 7,163,000 metric tons in 1950/51, exceeding the 1938/39 figure of 6,629,000 by only 8 per cent. The increase in the world total was mainly due to the rise in consumption in high income areas. In the United States and Canada, consumption of cotton rose from 1.5 million metric tons in 1938/39 to 2.4 million in 1950/51, an increase of 53 per cent. Europe[6] in the same period increased its consumption from 1.8 million metric tons to 1.9 million tons, or by 5.5 per cent. There was some increase in total consumption in Latin America. Asia, however, recorded a substantial drop, from 2.2 million metric tons in 1938/39 to 1.8 million in 1950/51, or 14 per cent, owing largely to the decline in consumption in Japan, China, and India. Particularly in Japan, consumption of cotton in 1951 was substantially below the pre-war level in spite of a steep rise after 1948.

4/ Cotton production is subject to many extremely variable elements in addition to demand and other factors which are also common to synthetic fibre production. The land best suited for cotton cultivation is situated between the limits of 40° north and 30° south, exclusive of equatorial areas. In sub-tropical countries, particularly, rainfall is adequate during the growing season, and the ripening and picking season is warm and dry. Acreage devoted to cotton cultivation is sometimes restricted in favour of food crops; this is general practice in time of war, but restrictions are also sometimes imposed in peace-time when food shortages develop, as in India, or in order to regulate the cotton supply, as in the United States. The availability of labour, particularly during the picking season, and of fertilizers, as well as weather hazards are other factors affecting cotton output from year to year. In addition, expansion of cotton production to some areas depends on the extension of irrigation, for example in Mexico.

5/ Including raw cotton consumed in spinning mills and other factories, plus estimates of non-commercial or household consumption.

6/ Exclusive of the Union of Soviet Socialist Republics.

18. The United States and Canada in 1950/51 together accounted for more than 33 per cent of total world cotton consumption exclusive of that of the Union of Soviet Socialist Republics. Europe (exclusive of USSR) accounted for 26 per cent, Latin America for 6 per cent and Asia for 26 per cent of total world consumption.

19. While world cotton consumption as a whole increased from 1938 to 1951, per capita consumption showed only a very slight gain, from 2.9 kilogrammes in 1938 to 3.0 kilogrammes in 1951, or a rise of some 3 per cent,7/ largely because of a sharp decline (21 per cent in the same period) in consumption in Asia. Consumption of cotton in Japan suffered the sharpest setback, from 6.3 kilogrammes per capita in 1938 to 2.5 kilogrammes in 1951. With the exception of Israel and Thailand, where per capita consumption increased after the war, and Turkey, which maintained its pre-war rate, all other countries of Asia consumed less cotton in 1951 than in 1938. Consumption in other areas was either maintained at the pre-war level or increased.

20. International trade in cotton has shown a steady tencency to decline since the nineteen thirties. In the five years from 1925 to 1929, the average annual volume of international trade in cotton was 14.6 million bales. This declined to 13.0 million bales during the period 1935 to 1939, and to 12.1 million bales in 1951/52. In relation to production, international trade in cotton in the post-war years accounted for 38 per cent of world production, as compared with 44 per cent in pre-war years.

21. World cotton stocks held in producing and importing countries decreased to an average of 14.4 million bales in the post-war years, as compared with 25.2 million bales on 1 August 1938.8/

7/ The figures for 1950 show a decline in world per capita consumption of some 7 per cent compared to 1938.

8/ The United States held almost half the world stocks of cotton before the war but no more than 20 per cent in 1952. Stocks in Mexico were generally larger than pre-war, but Mexican cotton output increased considerably, and stocks were therefore much smaller in relation to production. Other cotton producing countries, such as the Anglo-Egyptian Sudan, Brazil, China, India and Pakistan, Peru and Uganda, generally held smaller stocks, with the notable exceptions of Argentina and Egypt, whose stocks were larger than before the war.

The competitive impact of rayon

22. In order to illustrate changes in the relative competitive situation of rayon and cotton, a summary of per capita consumption of the two fibres in the major geographical areas and in the world as a whole is given in table 2. In addition to consumption data, the table also shows the changes in the relative shares of rayon and cotton by giving the percentage which each represents in the total per capita consumption of the two fibres. For purposes of comparison with the pre-war period, the 1951 figures are shown with those for 1938, which may be considered a fairly representative pre-war year.

Table 2. Per Capita Consumption of Rayon and Cotton in Selected Areas and in the World, 1938 and 1951

Area	1938			1951		
	Rayon	Cotton	Rayon and cotton	Rayon	Cotton	Rayon and cotton
In kilogrammes per capita:						
World	0.4	2.9	3.3	0.7	3.0	3.7
Asia	0.2	1.9	2.1	0.2[a/]	1.5	1.7
Canada and United States	1.0	9.5	10.5	3.7	13.8	17.5
Europe (exclusive of USSR)	1.1	3.8	4.9	1.9	4.2	6.1
Latin America	0.2	2.8	3.0	0.6	2.9	3.5
As percentage of total per capita consumption of rayon and cotton:						
World	12.2	87.8	100.0	18.9	81.1	100.0
Asia	10.3	89.7	100.0	9.7	90.3	100.0
Canada and United States	9.5	90.5	100.0	21.0	79.0	100.0
Europe (exclusive of USSR)	22.5	77.5	100.0	31.2	68.8	100.0
Latin America	6.7	93.3	100.0	17.0	83.0	100.0

Source: Food and Agriculture Organization of the United Nations, Per Caput Fibre Consumption Levels (Rome), December 1952.

a/ Rayon consumption, 0.16 kilogramme per capita.

23. It may be seen from these figures that for the world as a whole there was an increase in the per capita consumption of both fibres, rayon and cotton. The fact that the world average showed only a very slight increase was due to the decline in consumption of cotton in the Asian countries, to which reference was made above. In addition, as the breakdown of the world figure by major areas shows, while consumption of both fibres rose in all other regions, the per capita increase in Latin America was rather moderate. The rise in per capita consumption was particularly notable in the United States, Canada and western Europe. The relative share of rayon in per capita consumption of the two staples increased for the world as a whole, from 12.2 per cent to 18.9 per cent.

24. Aside from Asia, where a special situation resulted from the decline in textile output, referred to above, the impact of rayon in all the regions has been considerable. The increase in consumption of both textiles may be associated with the general rise in real incomes between 1938 and 1951, which resulted in a greater demand for textiles. The impact of rayon is reflected not only in the absolute rise in per capita consumption but also in the increase in its share of the total consumption of the two fibres.

25. The factors in this impact are of a complex nature. They include the relative price movements of the two products, the extent and rate of change in consumer tastes, and the technical improvement of the synthetic, which not only made possible its substitution for cotton in important industrial uses, but also opened up new fields of utilization. One important factor in determining the relative competitive price position of the two products was governmental policy with respect to cotton in some producing countries, which provided for price support and other measures designed to protect the income of agricultural producers against fluctuations in world prices.

26. Changes in consumer tastes are of especial importance in the case of products such as textile staples; their impact on demand may, according to the case, either reinforce or mitigate the price effect. Thus, a shift in consumer preference from cotton to rayon will reinforce the favourable competitive position of rayon achieved through the improvement of the relative price position with regard to cotton, and vice versa. Consumer preferences are, on the other hand, subject to a number of factors, such as changes in fashion, climatic conditions in individual countries or the relative strength of advertising and educational campaigns by producers of competing fibres.

27. In view of the complexity of the problem, if an evaluation of the impact of rayon is to take into account the effect of the various factors involved, it would have to be undertaken on a country-by-country basis. It is beyond the scope of this paper to engage in this type of study; it is possible, however, to derive a few general indications from considering some of the points mentioned above in the particular case of the United States.

28. The competition of rayon and cotton in the North American market was influenced by the developments affecting the price relationship between the two.[9/] From 1935 to 1939 rayon staple was priced at 28 cents per pound in the United States as compared with 11 cents per pound for cotton. After 1945, however, the price relation between rayon and cotton became generally favourable to the former, owing to a very sharp increase in the price of cotton. The improvement in the price relationship took place in spite of a rise in prices of rayon along with those of other industrial products; in this rise the increased cost of the raw materials, particularly the price of pulp, was an important contributing factor. In 1947/48 viscose staple fibre was 34.5 cents per pound as against 36.0 cents per pound for cotton. In the next two years rayon prices increased somewhat above cotton prices, but they have declined again since 1950/51.

29. As was mentioned above, the improvement in the relative price position of rayon was chiefly due to the fact that cotton prices in the United States increased steeply in the post-war years, even when compared with other raw materials, as can be seen from table 3. While the pressure of demand was a contributory factor in the increase, the basic trend of cotton prices was determined by United States Government price support policies, which guaranteed the cotton growers minimum prices under the price parity principle.

9/ In the following computations of price ratios, the most currently used United States grade, middling 15/16", was taken as the standard type for comparison with rayon.

Table 3. Price indices of selected commodities in the United States, 1948/49, 1950/51 and 1951/52 (1938/39 = 100)

Commodity	1948/49	1950/51	1951/52
All commodities	215.1	237.5	243.2
Raw materials	247.9	275.8	273.4
Cotton	369.4	489.2	453.0
Rayon	144.9	156.2	160.0
Ration, rayon to cotton prices	39.2	31.9	35.3

Source: United States Department of Labour, Bureau of Labor Statistics.

30. As to changes in the structure of the relative demand for the two staples, data available for the United States make it possible to ascertain how the increase in amount of rayon used between 1937 and 1949 was distributed among the various branches of the textile industry (table 4). Total United States consumption of artificial fibres rose by 218 per cent from 1937 to 1949, an increase of 337,000 metric tons. Of the total increase, 13 per cent was accounted for by exports, 42 per cent represented increased consumption of rayon in industrial and miscellaneous uses, and 45 per cent, the increase in the use of rayon for consumer goods (clothing and household goods). In the latter category, the increase in consumption was concentrated in women's and children's clothing, resulting in a substantial shift in the relative structure of demand for consumer textiles

31. It was in industrial uses that the substitution of rayon for cotton was most significant during the period under review. While use of rayon increased more than ninefold from 1937 to 1949, cotton consumption for industrial uses decreased by 15 per cent, although consumption for other uses was well maintained. Besides technological advances in the development of required technical characteristics for specific industrial uses, the favourable shift in the price ratio of rayon

compared with cotton may be considered as the leading factor in the shift.[10/]

Table 4. Consumption of Natural and Synthetic Fibres[a/] in the United States, 1937 and 1949

(Millions of pounds)

Item	1937		1949	
	Total natural fibres	Total synthetic fibres	Total natural fibres	Total synthetic fibres
Men's and boys' clothing	1,068.4	46.7	1,104.1	130.3
Women's and children's apparel.....	703.1	227.8	747.8	430.0
Household articles.....	986.1	28.7	1,191.4	76.2
Total consumption for non-industrial use....	2,757.6	303.2	3,043.3	636.5
Industrial use	1,522.3	33.7	1,245.4	346.8
Exports	94.4	3.9	366.8	100.2
Total consumption	4,374.3	340.8	4,655.5	1,083.5

Source: Rayon Organon, Supplement, (New York) May 1951, page 85.

a/ Mostly rayon.

Impact of rayon competition on international trade in cotton

32. As already stated, a considerable decrease occurred in total international trade in cotton in the early post-war period as compared with pre-war. World exports of cotton in post-war years accounted for only 38 per cent of total world production, on an average, as against a pre-war average of 42 per cent (table 5).

10/ One of the examples of such substitution is the use of rayon in tyre manufacturing. High strength rayon has a higher resistance to wear than cotton, which makes it more appropriate for use in automobile tyre cords and fabrics. Of the 157,000 metric tons of rayon for industrial uses in 1949, 128,000 metric tons, or more than 80 per cent, was used for tyre cords. First used for tyres in trucks and military vehicles since the end of the war, these rayon cords have also replaced cotton cords for passenger cars. While before the war tyre cords made of rayon were only a small fraction of all automobile tyre cords produced in the United States, they accounted for 63 per cent in 1949, 57 per cent in 1950 and 52 per cent in 1951.

33. This decline was a result of several changes. In the first place, there was a decline in United States exports, which can be considered a direct result of the dollar shortage. The decline would probably have been much greater, especially during the period 1948 to 1950, had not a substantial part of United States cotton shipments to western Europe in that period been financed through the Economic Cooperation Administration (ECA). Its assistance amounted to $1,500 million, which, on the basis of 38 cents per pound, the average price of United States middling 15/16", may be estimated at some 1.8 million bales of cotton per year, 28 per cent of western Europe's total cotton imports. From 4.8 million bales of cotton in 1947/48, western Europe's imports of cotton increased to 6.6 million bales in the following crop year. Western European imports of cotton were maintained at about that level throughout most of the following years, as against 8 million bales before the war.

34. The sharpest decline in exports occurred in Latin America, where domestic mill consumption of cotton increased considerably; in 1950/51 it was 69 per cent above pre-war. Exports of raw cotton from Latin American countries, as a percentage of their domestic production, fell from 73 per cent in 1938/39 (table 5) to 39 per cent in 1951/52.

35. Another factor in the decline in total volume of trade was the decline in imports into Japan as a result of a sharp reduction in cotton consumption in that country.[11/] Finally, there was an increase in domestic consumption in some of the under-developed countries producing cotton, as a result of the growth of a domestic cotton industry.

36. In view of the importance of these shifts, which affected the volume of cotton in international trade, it is difficult to ascertain to what extent the decline was also a result of the impact of competition on the part of rayon. While some of the cotton importing countries did increase their production of rayon, the increase did not, however, reach such a level as to be considered an important factor in the decline of international trade in cotton.

11/ In the case of Japan, the decrease in its cotton imports coincided with a sharp decline in the output and consumption of rayon.

Table 5. World Production and Exports of Cotton, 1934-38, 1938/39 and 1951/52

(Thousands of bales)

AREA	1934-38			1938/39			1951/52		
	Production	Exports	Exports as per cent of production	Production	Exports	Exports as per cent of production	Production	Exports	Exports as per cent of production
World.....	30,500 b/	12,961	42	29,531	11,621	42	35,377	12,086	34
Africa.....	2,719	2,800 c/	103	2,637	2,775	105	3,018	2,240	74
Asia and Oceania....	8,635	2,746 d/	32	8,282	3,292	40	8,668	1,599	18
Latin America.....	2,741	1,765 c/	64	3,037	2,209	73	4,533	1,757	39
United States.....	12,389	5,296	43	11,617	3,325	28	15,064	5,519	37

a/ Including the Union of Soviet Socialist Republics.

b/ Including unspecified countries.

c/ Estimated.

d/ India.

37. In conclusion, it can be stated that:

(a) An important factor in the competition of rayon with cotton in recent years has been the strengthening of its relative price position in comparison with cotton. This improvement has been due primarily to the rise in cotton prices. Shifts in consumer tastes and improvement of quality for industrial uses have been other effective factors.

(b) In most countries cotton consumption has increased at the same time as consumption of rayon - although the increase in the latter was at a relatively higher rate - in response to increased demand arising from higher incomes. The slackening of the rate of increase in world consumption of cotton in the post-war period can be attributed to the decline in consumption in some Asian countries, particularly in the Far East, rather than to the competition of rayon.

(c) The decline of international trade in cotton was due to a number of factors, among which was the increased consumption in domestic mills in several cotton producing countries of Latin America, as well as the decline in consumption in Asia. Competition of rayon does not appear to have been a significant factor in the contraction of international trade.

2. Synthetic and Natural Rubber

38. The problem of competitive impact of the synthetic product on natural rubber may be limited in this discussion to the United States, which produces the greater part of synthetic rubber, and is at the same time the largest single consumer of natural rubber in the world.[12/]

12/ In the United States there are several varieties of synthetic rubber, each of which has special uses. The major synthetic is grade GR-S, which is used in tyres for passenger cars, small trucks, farm implements, motorcycles and bicycles. It is, however, not well suited for use in tyres for airplanes, heavy trucks and buses, where natural rubber is manifestly superior. Two other qualities of synthetic rubber are butyl, which is used primarily for inner tubes on account of its superior quality of air tightness and resistance to tearing, and neoprene, which, because of its high resistance to heat, oxidation, sunlight and oil, is suitable as insulation for electric wiring and for uses where high resistance to oil and gasoline is essential.

Trends in production of natural rubber

39. World rubber production, stimulated by ever increasing demand, assumed a sharp upward trend in the twentieth century. Before the Second World War this expansion represented almost exclusively the increase in output of natural rubber; since then, output of both natural and synthetic rubber has expanded. In 1910-14 world production of natural rubber averaged about 110,000 long tons; the record high, reached in 1950-52, was an annual average of 1,840,000 tons.

40. During the Second World War, south-eastern Asia, the principal rubber producing area, was directly involved in the war; for the only time in the history of world rubber production output declined considerably. After the war, rubber production resumed its impressive rate of increase; output in the first four post-war years averaged about one-third above that of 1935-39, while production in 1950-52 was 90 per cent above the pre-war average. Despite the sharp rise in output of synthetic rubber, natural rubber reached an all-time high under the stimulus of the demand resulting from the Korean hostilities. Expansion in output was made possible in part because newly planted trees had reached production maturity and in part because producers encouraged over-tapping, a common practice in an expanding market.[13/]

13/ There are two major sources for natural rubber: wild rubber trees in the tropical forests of Latin America, Africa and Asia, from which only a small fraction of total world output is derived; and cultivated plantation rubber trees. From an economic point of view, it is useful to distinguish two types of plantation rubber: estate rubber and smallholders' rubber. As the names indicate, estate rubber is produced on large plantations requiring the investment of considerable capital and depending mostly on hired labour. Estate rubber is generally superior in quality to smallholders' rubber and is slightly higher in price. Smallholders' rubber is produced on small plantations, free from heavy fixed costs and dependency on hired labour. These small plantations range from gardens requiring full-time care by the farmer's family to a few trees. Because of lower costs, smallholders' rubber can be produced more cheaply and is generally priced slightly below estate rubber. The price disparity between estate and smallholders' rubber is not important enough to induce smallholders to improve the quality of their product, which is generally of greater impurity than estate rubber.

41. Output from almost all countries producing natural rubber expanded considerably in the post-war period. In 1952, Indonesia, the leading rubber producer, with 42 per cent of the world total, produced 133 per cent more rubber than in 1938. Malayan production, which was the second largest, accounting for one-third of the world total, increased by 63 per cent when compared with pre-war. In Ceylon and Thailand, which each supplied 6 per cent of the world's natural rubber, output increased by 200 per cent and 160 per cent, respectively. Increases in output in other Asian countries were equally substantial, with the exception of Indo-China, which has not yet regained its pre-war production average.

Development of synthetic rubber

42. Production of synthetic rubber[14/] has expanded most in the United States. During the Second World War the United States Government built synthetic plants at a high cost in order to supplement its inadequate supplies of natural rubber.

14/ Synthetic rubber was successfully developed in the nineteen thirties. Relatively small quantities were produced at that time in Germany, the Union of Soviet Socialist Republics and the United States. In Germany, the synthetic rubber industry expanded considerably during the Second World War; output in 1943 reached 116,000 tons as compared to 5,000 tons before the war. In post-war years, however, German industry has produced only an insignificant quantity of synthetic rubber.

From the point of view of chemical structure, synthetic rubber is represented by several compounds which have qualities similar to rubber. The chemical composition and physical properties of the various compounds are different from each other and from natural rubber. The most important varieties are commonly classified into general-purpose and special-purpose rubbers. The synthetic rubber for general purposes is known in the United States as GR-S, that is, government rubber-styrene. It is produced from butadiene and styrene. The raw materials for butadiene and butylene and butane. Alcohol and acetylene can also be used as raw materials.

Synthetic rubbers for special purposes are butyl, which is produced from isobutylene and isoprene, both oil derivatives; neoprene, which is derived chemically from acetylene; and N-type rubbers, which are copolymers of butadiene and acrylonitrile.

The total production capacity was actually less than a million tons, including general-purpose and special-purpose rubbers. After the war, some of these plants were declared surplus and sold to private industry; the remaining plants are still owned by the Government. During the early post-war years the synthetic plants were operated at only partial capacity; consequently, United States output decreased significantly, to about 394,000 tons in 1949 as compared to 820,000 tons in 1945. Since the beginning of the Korean conflict, however, production has increased again, to 845,000 tons in 1951 and 800,000 in 1952.

43. After 1945, in spite of the reopening of normal sources of supply of natural rubber, consumption of synthetic rubber continued in the United States, at a reduced level, dropping by about 40 per cent between 1945 and 1949 as a result of the policy of the United States Government, which reduced the output of synthetic rubber in government-owned plants. Following the outbreak of hostilities in Korea, production and consumption of the synthetic varieties increased, and in 1952 exceeded the war-time peak, with a level of consumption of around 800,000 tons per year. The proportion of synthetic to total rubber consumption, which was 50 per cent in 1947, rose to 62 per cent in 1951 and 64 per cent in 1952.[15/]

44. Compared with the increasing consumption of synthetic rubber, consumption of natural rubber in the United States rose only moderately from 1947 to 1950, in sharp contrast to the situation in the rest of the world; it decreased in absolute terms in 1951 and 1952 when compared with pre-war consumption.

15/ Synthetic rubber production and consumption in the United States are subject to the Rubber Act of 1948 (extended to 31 March 1954). The act prescribes a minimum annual production and use of 221,667 long tons of synthetic rubber. In addition, the Defense Production Administration is empowered to establish a mandatory consumption requirement of any amount in excess of the minimum figure which is deemed necessary in the interest of national security. At the beginning of 1953 the minimum annual consumption level established by the Administration was 510,000 long tons. Following the outbreak of the Korean war, a new policy was adopted in addition to the above-mentioned measures, aimed at increasing production and use of synthetic rubber to the maximum of available facilities and curtailing somewhat the purchase of natural rubber for strategic stockpiling. As the supply situation improved, restrictions were gradually removed.

Table 6. United States Share in World Consumption of New Rubber, Pre-war and 1943 to 1952

(Thousands of metric tons)

YEAR	World consumption a/			United States Consumption					
				Natural rubber		Synthetic rubber		Total	
	Natural rubber b/	Synthetic rubber b/	Total b/	Quantity	Per cent of world total	Quantity	Per cent of world total	Quantity	Per cent of world total
1938	955.0	5.0	960.0	437.0	45.8	-	-	437.0	45.5
1939	1,105.0	15.0	1,120.0	592.0	53.6	1.8	11.7	593.8	53.0
1943	615.0	292.5	907.5	317.6	51.6	170.9	58.4	488.5	53.8
1944	387.5	737.5	1,125.0	144.1	37.2	566.7	76.8	710.8	63.2
1945	262.5	865.0	1,127.5	105.4	40.2	693.6	80.2	799.0	70.9
1946	555.0	912.5	1,467.5	277.6	50.0	761.7	83.5	1,039.3	70.8
1947	1,110.0	625.0	1,735.0	562.7	50.7	559.7	89.5	1,122.3	64.7
1948	1,422.5	480.0	1,902.5	627.3	44.1	442.1	92.1	1,069.4	56.2
1949	1,437.5	450.0	1,887.5	574.5	40.7	414.4	92.1	988.9	52.4
1950	1,705.0	580.0	2,285.0	720.3	42.2	538.3	92.8	1,258.6	55.1
1951	1,500.0	812.5	2,312.5	454.0	30.3	758.9	93.4	1,212.9	52.5
1952	1,447.5	885.0	2,332.5	453.6	31.3	806.5	91.1	1,260.1	54.0

Source: International Rubber Study Group, Rubber Statistical Bulletin.

a/ Excluding consumption of synthetic rubber by the Union of Soviet Socialist Republics, data not being available.

b/ Estimated, or partially estimated.

From 1947 to 1950, United States consumption of natural rubber averaged 621,000 long tons, 14 per cent above the figure for 1937, as compared to a 56 per cent increase for the rest of the world. In 1951 and 1952, consumption of natural rubber in the United States decreased to an average of 454,000 long tons, 23 per cent below the 1939 level, while consumption in the rest of the world increased by 99 per cent. As a result, the United States share in world consumption of natural rubber declined significantly (table 6), from about 50 per cent before the war to an average of 42 per cent in 1948-49 and 30 per cent in 1951-52.

The price aspect

45. In examining the relative competitive position of synthetic rubber and natural rubber, it will be recalled that the synthetic rubber industry in the United States has been under direct government control since 1942. In addition to its price policy, consumption of the synthetic product by the industries using rubber has been promoted by the Government through direct regulatory measures.

46. The course of prices of synthetic rubber in the United States may be taken as indicative of the trend in costs in the government-owned plants. As may be seen from table 7, during the early stage of development the price of synthetic rubber was much higher than that of the natural product; in 1942, GR-S was 50 cents per pound, neoprene 65 cents and butyl 33 cents, as compared with 22.5 cents for natural rubber.

47. In the succeeding years, however, the price of synthetic rubber declined substantially. GR-S decreased to 18.5 cents per pound in 1944, a price which was maintained until 1950. As table 7 shows, during the years 1947 and 1948, GR-S held a relative price advantage of 13 per cent and 19 per cent, respectively, over natural rubber. The spread between the prices of the natural and synthetic products, which favoured the latter, widened further after the Korean conflict began; in spite of a rise in price of the synthetic to 25 cents per pound, its relative price advantage over the natural product rose to 136 per cent in 1951. It declined in 1952 to 64 per cent following the steep decline in prices of natural rubber in that year. On the whole, throughout the post-war period the synthetic product has generally had a clear price advantage, which favoured its substitution for the natural product.

Table 7. Price of Natural and Synthetic Rubber in the United States, 1942 and 1947 to 1951

(In United States cents per pound)

Year	Natural rubber a/	GR-S synthetic	Ratio of prices of natural rubber to synthetic
1942 b/	22.5	50.0	45
1947	21.0	18.5	113
1948	22.0	18.5	119
1949	17.6	18.5	95
1950	41.1	19.0	216
1951	59.1	25.0	236
1952	38.6	23.5	164

Source: International Rubber Study Group, Rubber Statistical Bulletin.

a/ New York average prices for all grades, except that, from 8 January 1951 to 30 June 1952, prices represent averages of United States Government selling prices.

b/ First year during which GR-S synthetic rubber was available commercially.

48. The next question considered is the extent to which the appearance of synthetic substitutes affected the market price of natural rubber. It will be recalled that the price of natural rubber had been subject to extremely violent fluctuations since the beginning of the century; it was as high as $1.03 per pound in 1910 and as low as 3.4 cents in 1932. Its short-term fluctuations were equally wide; the price dropped by 60 per cent from 1920 to 1922, and increased by 57 per cent from 1935 to 1937.

49. In the post-war period, the price of natural rubber was relatively stable until the outbreak of hostilities in Korea in 1950. From 1946 to 1949, there were only moderate changes. Between 1946 and 1948 the price of rubber fluctuated around 21 cents per pound, only 8 per cent above the level of 1937. This compares with a price increase of 88 per cent in the same period for raw materials as a group. In 1949, a year of general decline in economic activity, the price declined by some 20 per cent from the 1948 level.

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50. After the outbreak of the Korean conflict, the sudden increase in demand for natural rubber for immediate consumption as well as for stockpiling, aggravated by speculative demand, caused violent swings in prices. Natural rubber rose to 41.1 cents per pound in 1950, an increase of 134 per cent from 1949; it further increased to 59.1 cents per pound in 1951, but decreased by 35 per cent to 38.6 cents per pound in the following year.

51. In view of the shortness of the period during which the synthetic product has been in effective competition with the natural product, it would be hazardous to formulate any general conclusions. It does appear, however, that, at least in the period from 1946 to the outbreak of hostilities in Korea in mid-1950, the existence of large-scale productive capacity for synthetic rubber tended to reduce the amplitude of fluctuations in the prices of the natural product in world markets.

52. As to the course of rubber prices during 1950 and 1951, a key element in the price situation was the fact that output of the synthetic substitute was practically limited to existing installed capacity in the United States, barring an expansion of productive facilities unlikely in the immediate future. This provided an upper limit to which the supply of the synthetic product in the United States at controlled prices could be expected to expand and to relieve the pressure on supply and prices of natural rubber in the world market. Beyond that point, the normal rigidities of supply of the natural product would come into play. The expansion of world demand in 1950 and 1951, including stockpiling and speculative demand, thus resulted in strong pressure on the prices of natural rubber. Conversely, the relaxation of the pressure of demand in the following year brought about a sharp reaction in the price of the natural product in the world market.[16/]

16/ By the end of 1952, there were apprehensions as to the future course of prices of natural rubber. A conference of representatives of the main producing and consuming countries was convened in London at the beginning of 1953 to examine the possibilities of adopting policies for stabilizing the rubber market. No final agreement was reached; a second conference was scheduled later in the year.

GENERAL CONCLUSIONS

53. The history of the two types of synthetic product examined in this report would tend to show that there is no uniform pattern of impact of a new synthetic on an established natural product. The nature of the impact will vary from industry to industry. It took a relatively long time for the rayon industry to reach a stage at which it became a significant factor in the world's total supply of textiles. On the other hand, the period of growth to economic maturity of the synthetic rubber industry in the United States has been remarkably short. This was brought about by a special situation created by war-time scarcity of natural rubber, which resulted in the establishment of a large-scale synthetic industry in the United States through direct government action. Thus, within a few years, the synthetic product was able to supply a major share of the rubber consumed in that country.

54. In the case of fibres as well as rubber, the relative position with respect to both demand and supply was such that both the natural and the synthetic products shared in the increase which occurred in demand. Consumption of the synthetic product increased, however, at a higher rate, particularly in the case of synthetic rubber. The increase in the relative share of synthetics in total consumption may be considered indicative of their impact upon the position of the natural products.

55. Assuming the existence of economically mature synthetics industries, that is, industries which are in a position to supply a significant part of existing demand, the extent of the impact of the synthetic product upon the natural product depends upon a number of factors. A major factor is the competitive price situation, or the relative movement of prices of the natural and synthetic products. In the period under review this factor has generally favoured the synthetic product. The competitive price situation can be considered as a controlling factor in the case of products destined for industrial consumption. One of the reasons for the rapid increase in the use of synthetic substitutes for natural rubber was the fact that the synthetic is used as a raw material for further industrial processing; thus, once its technical characteristics have been developed according to industrial specifications, it becomes a perfectly acceptable

substitute. The same applies in the case of rayon in industrial uses. In the case of synthetics which represent direct consumer goods (for example, rayon textiles), the competitive situation is also affected by the factor of consumers' tastes.

56. As to the problem of relative prices, the history of the development of industries of synthetic products has shown that, in their earlier stages, they were able to achieve a substantial reduction in unit production costs, which has been reflected in a decline in prices. Once the industries arrive at technological maturity, it is unlikely that further significant declines in prices corresponding to reduced costs can be expected. The problem, however, is not so much one of the absolute level of prices as of the relative prices of the synthetic and natural products; thus the competitive price position of the two products is dependent as much on the trend of costs of production of the synthetics as on other factors, such as the existence of government support policies for the natural product. In the case of rayon, it was seen that improvement in the relative competitive position of rayon in the post-war period was primarily due to the high level of cotton prices.

57. The question of the extent to which the existence of a synthetic substitute has affected the price situation of the natural product is, in the circumstances, difficult to answer in general terms. Other things being equal, if the expansion in total demand is gradual, the possibility of expanding output of the synthetic would tend to have a stabilizing influence upon the price of the natural product. However, the history of cotton and rubber in 1950 and 1951 has shown that a sudden rise in demand may still lead to substantial fluctuations in the prices of the natural products. This has been the case with natural rubber in particular, presumably owing to the fact that expansion of synthetic production has been practically limited to the capacity of existing facilities in the United States. In the longer run, assuming a rising demand, the price situation will largely depend on the extent to which new productive capacity of the synthetic product will be forthcoming in the major consuming countries.

Table I. Production of Cotton, by Area and Country, 1934/35 to 1938/39 and 1947/48 to 1952/53 a/

(Thousands of bales)

Area and Country	1934/35 - 1938/39	1938/39	1947/48	1948/49	1949/50	1950/51	1951/52	1952/53
Africa:								
Anglo-Egyptian Sudan	249	280	235	288	305	500	285	325
Belgian Congo	143	181	181	218	235	309	210	220
Egypt	1,818	1,728	1,330	1,840	1,786	1,762	1,473	1,950
Mozambique	...	22	96	127	89	130	130	135
Nigeria	41	30	60	60	79	80	110	115
Uganda	273	254	139	327	287	290	310	285
Other countries b/	133	142	224	215	234	258	300	328
Total	2,679	2,657	2,315	3,075	3,080	3,309	3,018	3,358
Asia and Oceania:								
China	3,026	2,301	2,150	2,130	1,750	2,400	3,000	2,800
India	4,780	5,151	4,625	4,000	3,390	2,735	3,160	3,950
Pakistan	...	...	900	810	1,080	1,320	1,900	1,400
Turkey	249	249	218	309	443	543	613	785
Other countries c/	446	581	344	502	397	544	593	635
Total	8,500	8,282	6,137	5,541	5,963	7,444	8,668	8,570
Europe (excluding USSR)	102	198	130	193	161	231	284	326
Latin America:								
Argentina	263	280	413	442	515	500	600	550
Brazil	1,814	1,989	1,280	1,530	1,350	1,650	1,900	1,600
Mexico	301	293	447	528	937	1,145	1,370	1,135
Peru	390	378	307	370	378	372	405	440
Other countries d/	120	117	116	132	193	173	288	274
Total	2,877	3,057	2,518	2,922	3,351	3,843	4,533	3,999
United States	12,881	11,617	11,658	14,649	16,005	9,977	15,084	14,808
USSR	3,084	3,800	2,600	2,600	2,700	3,300	3,800	3,800
World, excluding United States	17,344	17,914	13,600	14,293	15,174	18,029	20,333	19,973
World Total	30,186	29,531	25,258	28,942	31,179	27,900	35,377	34,781

Source: Commonwealth Economic Committee, Industrial Fibres (London), 1939; International Cotton Advisory Committee, Cotton Quarterly Statistical Bulletin (Washington, D.C.), December 1952.

a/ Crop years beginning 1 August.

b/ Pre-war average figures include only French Equatorial Africa, Kenya, Nyasaland and Tanganyika; other figures include Angola and French West Africa.

c/ Pre-war average figures include only Burma, Korea and Syria; other figures include the following additional countries: Afghanistan, Iran, Iraq, Japan and Thailand.

d/ Pre-war average figures include only British West Indies, Haiti and Paraguay; other figures include these following additional countries: Colombia, Ecuador, El Salvador, Guatemala, Nicaragua, and Venezuela.

Table II. World Rayon[a/] Production, by Countries, 1929 to 1951, and Productive Capacity, 1952 and 1953

(Millions of pounds)

Area and country	Production																				Capacity		
	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	
World total:	462.6	497.4	527.7	534.2	693.3	823.3	1,054.3	1,301.1	1,622.6	1,598.1	2,240.4	2,460.7	2,706.4	2,649.6	2,540.0	2,680.0	1,405.7	1,881.1	1,979.4	2,434.7	2,701.8	3,401.8	3,997.6	4,773.3	5,458.9	World total
Europe:																										Europe:
Austria	3.1	3.7	-	0.9	1.0	1.0	1.9	1.9	2.2	2.5	13.0	44.0	71.0	72.0	72.0	51.0	9.2	1.1	0.3	29.8	36.0	71.5	99.2	99.2	99.2	Austria
Belgium	13.4	13.7	7.8	6.4	11.3	15.0	15.8	24.6	27.5	23.7	15.2	13.7	21.5	19.5	27.1	13.5	11.0	46.7	45.9	47.3	43.0	45.8	64.1	72.7	74.0	Belgium
Czechoslovakia	4.7	5.1	4.2	5.6	5.9	5.7	6.3	7.4	10.0	6.0	6.0	11.5	13.7	16.3	20.9	23.1	7.9	27.5	40.2	40.5	50.0	57.3	62.0	65.0	63.0	Czechoslovakia
Finland	-	-	-	-	-	-	-	-	-	0.1	1.5	0.5	-	2.0	3.5	13.3	8.0	11.9	15.8	13.4	13.6	17.3	19.3	24.5	24.5	Finland
France	41.8	42.6	44.5	37.3	39.2	41.6	44.3	46.1	47.7	73.5	71.7	58.7	108.8	129.2	122.6	98.5	49.4	101.8	134.3	163.2	199.1	179.6	228.1	257.3	237.5	France
Germany: b/																										Germany: b/
Eastern																										Eastern
Western	40.8	43.4	46.3	41.0	73.6	100.7	130.6	180.9	234.0	404.0	480.0	554.0	669.0	684.0	660.0	340.0	(48.0	63.7	133.9	280.0	336.0	434.0	445.0	445.0	445.0	Western
																	(48.0	63.0	83.0	90.0	140.0	151.0	151.0	240.0		
Italy	73.0	67.2	73.6	71.7	84.4	107.4	130.4	186.1	248.9	248.3	304.9	348.5	391.5	315.9	239.5	67.5	7.5	84.6	139.3	244.5	190.1	287.1	287.7	443.0	443.5	Italy
Netherlands	17.6	17.6	18.7	19.8	22.2	21.9	21.3	22.1	23.0	23.3	25.2	20.0	27.5	24.8	23.7	27.5	3.4	20.5	45.5	58.5	60.0	72.2	79.8	87.0	92.0	Netherlands
Poland	5.9	6.0	8.0	7.8	8.4	10.3	12.6	13.9	16.0	22.5	23.0	26.0	53.0	58.0	44.0	27.0	11.1	19.2	26.5	37.9	44.4	44.1	64.1	70.0	125.0	Poland
Spain	3.0	3.6	3.1	4.1	5.5	5.7	6.9	4.0	3.0	2.0	3.2	6.8	9.0	12.2	14.4	16.3	14.5	32.5	36.0	36.1	39.7	52.2	70.1	78.4	80.4	Spain
Sweden	0.3	0.5	0.6	0.6	0.6	1.0	1.5	2.1	4.9	5.6	8.4	7.9	20.9	18.4	27.5	26.3	20.1	32.6	38.0	38.7	38.1	39.6	37.6	47.5	48.7	Sweden
Switzerland	10.8	10.1	10.1	9.9	9.8	10.7	8.1	11.0	12.3	13.2	12.1	12.1	18.5	24.4	29.0	40.1	36.1	38.9	37.4	38.5	37.0	38.0	41.0	41.0	42.0	Switzerland
United Kingdom	39.4	47.8	53.5	73.1	82.5	93.3	121.9	156.2	145.7	131.1	173.8	198.6	134.9	121.3	122.4	130.8	124.0	179.7	211.3	251.6	283.7	341.8	389.4	480.0	495.0	United Kingdom
Total, Europe	280.3	287.3	300.1	318.0	388.4	443.0	587.8	686.9	944.5	1,071.2	1,389.2	1,467.4	1,751.9	1,699.3	1,684.8	1,324.1	529.0	744.6	992.0	1,270.1	1,413.6	1,838.9	2,089.6	2,403.7	2,562.9	Total, Europe
North America:																										North America:
Canada	3.7	4.4	3.9	7.3	7.3	10.5	13.8	19.7	16.5	13.7	14.2	19.6	23.9	29.0	17.6	21.6	22.5	21.6	28.7	33.8	38.1	51.3	57.6	66.5	120.0	Canada
United States	183.9	187.7	151.8	191.8	313.6	320.5	393.2	389.9	540.8	387.5	379.9	471.2	573.2	652.6	640.1	734.0	783.9	911.3	1,116.5	993.8	1,099.5	1,484.3	1,680.0	1,716.0		United States
Total, North America	187.6	192.1	155.6	199.1	320.9	331.1	407.4	409.6	557.3	401.2	394.1	490.8	597.1	681.6	657.7	755.6	806.4	932.9	1,145.2	1,027.6	1,137.6	1,535.6	1,737.6	1,782.5	1,837.0	Total, North America
Latin America:																										Latin America:
Argentina	-	-	-	-	-	-	-	0.5	1.8	2.7	5.8	5.9	7.4	8.3	7.1	8.6	9.5	10.1	10.8	10.4	14.8	17.6	18.3	23.8	24.9	Argentina
Brazil	0.5	0.4	1.1	1.5	2.0	2.6	3.5	4.9	7.3	11.6	14.7	15.7	17.1	17.8	16.2	20.5	21.5	25.9	28.5	25.8	33.0	43.8	40.2	44.0	43.0	Brazil
Chile	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.7	1.1	1.4	1.8	2.8	3.2	3.6	4.9	5.7	6.5	7.5	9.5	Chile
Colombia	-	-	-	-	-	-	-	-	-	-	0.2	0.6	1.2	1.7	1.4	1.6	1.7	1.7	2.5	2.8	3.7	5.2	6.5	12.9	18.5	Colombia
Cuba	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4	7.6	16.5	22.3	20.7	20.7	Cuba
Mexico	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.5	0.4	0.4	2.0	10.0	20.5	20.5	20.5	24.0	30.5	30.5	Mexico
Peru	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	0.7	1.3	1.4	1.6	2.5	Peru
Uruguay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.9	1.1	Uruguay
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.5	Venezuela
Total, Latin America	...	...	...	...	...	...	3.5	5.4	9.1	14.3	20.7	22.2	25.9	28.3	26.3	32.7	35.3	42.5	44.5	53.4	65.9	108.6	124.6	145.5	161.5	Total, Latin America
Africa and Australasia:																										Africa and Australasia:
Egypt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	7.1	10.0	20.5	24.9	Egypt
Japan	87.2	79.2	48.8	90.5	90.0	186.6	257.7	185.2	121.5	541.1	539.8	501.9	464.7	280.9	172.2	305.1	87.3	89.7	95.6	75.0	126.3	252.9	348.8	436.2	561.3	Japan
Total, Africa and Australasia	...	...	...	...	...	...	257.7	185.2	121.5	541.1	539.8	501.9	464.7	280.9	172.2	305.1	87.3	89.7	95.6	75.0	128.3	260.0	358.8	456.7	586.2	Total, Africa and Australasia

Source: Textile Organon (New York), January and June 1952. Totals for world and for given areas include unspecified countries.

a/ The term "rayon" includes all synthetic fibres produced chemically from cellulose.

b/ Data for Germany prior to 1946 are based on boundaries before the Second World War. Beginning with 1946, data for the western zone are based on official reports and data for the eastern zone are estimated.

Table III. World Consumption of Cotton and Rayon[a] by Mills, 1904 to 1950

(Thousand millions of pounds)

Year[b]	Quantity			Per cent of total	
	Cotton	Rayon	Total	Cotton	Rayon
1904-13	9.5	-	9.5	100	-
1920-29	10.9	0.2	11.1	98	2
1934-38	13.5	1.7	15.2	89	11
1939-45	11.9	2.4	14.3	83	17
1946-50	13.6	2.8	16.4	83	17
1946	12.7	2.0	14.7	86	14
1947	13.2	2.4	15.6	85	15
1948	12.9	2.8	15.7	82	18
1949	13.2	3.1	16.3	81	19
1950	15.9	3.7	19.6	81	19

Source: International Cotton Advisory Committee, Report on the Developing World Cotton Situation, Part A (Washington, D.C.), page 58; The Cotton Board, International Cotton Textile Industry Conference (Manchester), page 62.

a/ Figures for rayon represent estimates adjusted to crop year basis by averaging production totals for calendar years.

b/ Data for cotton are for years beginning 1 August of the year stated.

Table IV. Consumption of Cotton, by Area and Country, 1938/39 and 1948/49 to 1951/52

(Thousands of metric tons)

Area and country	1938/39	1948/49	1949/50	1950/51	1951/52
World total	6,629.9	6,112.3	6,375.1	7,163.9	6,929.5
Africa	33.6	71.6	73.9	85.6	88.7
British West Africa	2.8	3.3	3.3	2.2	2.2
Egypt	26.2	28.8	51.8	60.9	63.1
Union of South Africa	... a/	5.0	5.4	6.3	6.9
Asia	2,179.0	1,773.4	1,643.3	1,843.0	2,033.3
China	714.4	639.6	498.7	596.3	650.5
India	745.0	808.7	704.7	683.0	758.9
Indonesia	... a/	0.9	1.7	3.3	3.7
Japan	581.3	159.8	222.8	346.7	392.4
Philippines	0.4	0.9	1.5	2.2	2.0
Australia	6.5	15.0	15.2	17.6	16.3
Canada and the United States	1,548.9	1,773.0	2,010.3	2,382.4	2,073.4
Canada	62.0	83.0	91.3	103.9	74.4
United States	1,486.9	1,690.0	1,919.0	2,278.5	1,999.0
Europe	1,783.9	1,609.6 b/	1,740.1 b/	1,853.1 b/	1,707.2 b/
Austria	39.0	15.4	20.2	20.6	20.6
Belgium-Luxembourg	69.6	80.4	86.7	103.2	87.8
Czechoslovakia	43.4	59.6	59.6	65.0	69.4
Denmark	8.0	6.7	9.5	10.2	10.2
Finland	13.2	8.2	10.6	11.5	12.8
France	280.8	225.5	243.9	261.9	260.2
Germany, western	249.3	126.6	189.3	227.7	204.9
Greece	18.4	18.2	20.6	24.7	23.8
Hungary	28.2	30.4	30.4	30.4	31.4
Italy	144.2	207.1	202.9	214.0	189.7
Netherlands	56.4	53.3	60.7	64.8	57.5
Norway	3.3	3.9	4.8	5.0	4.8
Poland	75.9	93.2	99.7	99.7	99.7
Portugal	21.7	32.7	35.8	34.9	37.9

Table IV, continued

Area and country	1938/39	1948/49	1949/50	1950/51	1951/52
Europe (continued)					
Spain	30.4	75.9	67.2	61.8	64.0
Sweden	29.7	25.1	28.2	29.5	28.2
Switzerland	30.6	28.6	30.4	36.4	33.6
United Kingdom	583.2	438.0	453.6	462.9	381.4
Yugoslavia	19.9	33.6	35.3	30.4	27.8
Latin America	258.4	407.6	408.7	436.0	420.0
Argentina	32.5	88.2	90.0	94.3	99.7
Brazil	139.2	178.9	178.9	188.6	173.5
Chile	4.3	14.5	18.0	14.3	13.9
Colombia	11.9	24.7	24.1	26.0	27.1
Cuba	2.2	4.3	5.9	6.7	5.4
Mexico	53.1	60.7	60.3	67.2	60.7
Peru	6.5	14.5	11.5	11.9	10.2
Uruguay	6.1	4.1	4.6	7.6	7.6
Venezuela	2.4	4.8	2.8	3.3	2.6
USSR	825.9	477.0	498.7	563.7	607.1

Source: International Cotton Advisory Committee, Cotton Quarterly Statistical Bulletin.

Including raw cotton consumed in spinning mills and other factories, plus estimates of non-commercial or household consumption; figures converted from bales at the rate of one bale = 478 pounds. Area totals include unspecified countries.

a/ Included in the total.

b/ Estimates for eastern Germany included in the total.

Table V. Average Prices of Cotton and Rayon Fibres in the United States and the United Kingdom, 1939/40 and 1946/47 to 1952/53

Year[a] or month	United States		United Kingdom		
	Cotton [b]	Rayon [c]	Cotton		Rayon [f]
			United States [d]	Egyptian [e]	
	(Cents per pound)		(Pence per pound)		
1939/40	11.0	25.0	7.6	9.3	11.0
1946/47	36.4	29.2	17.9	20.3	14.0
1947/48	36.0	34.5	22.5	30.1	16.5
1948/49	34.0	36.6	22.7	29.5	17.1
1949/50	34.0	35.0	30.4	37.9	18.0
1950/51	45.0	39.0	46.0	68.0	22.4
1951/52	41.3	40.0	41.8	53.6	26.0
1950/51:					
February 1951	-	40.0	47.8	79.8	25.0
March 1951	47.1	40.0	47.8	80.8	25.0
April 1951	47.2	40.0	51.5	75.8	25.0
May 1951	47.1	40.0	53.0	75.8	25.0
June 1951	46.9	40.0	52.6	75.3	25.0
July 1951	41.4	40.0	44.5	66.3	25.0
1951/52:					
August 1951	36.8	40.0	42.0	63.8	25.0
September 1951	36.8	40.0	41.4	61.3	25.0
October 1951	38.7	40.0	40.0	55.7	25.0
November 1951	43.2	40.0	43.4	62.5	25.0
December 1951	44.1	40.0	45.9	60.0	25.0
January 1952	43.8	40.0	45.5	60.0	25.0
February 1952	42.4	40.0	42.9	55.7	27.0
March 1952	42.5	40.0	41.1	50.0	27.0
April 1952	42.6	40.0	41.0	48.1	27.0
May 1952	40.7	40.0	40.0	46.4	27.0
June 1952	42.5	40.0	39.5	40.2	27.0
July 1952	41.6	40.0	39.0	40.0	27.0
1952/53:					
August 1952	42.1	40.0	38.5	40.0	27.0
September 1952	40.8	40.0	38.8	40.6	27.0
October 1952	38.0	40.0	...	...	27.0

Source: International Cotton Advisory Committee, Cotton Quarterly Statistical Bulletin, December 1952.

a/ Crop years beginning 1 August.

b/ Middling 15/16" delivered to mills, Memphis territory growths.

c/ Viscose rayon staple fibre, prices from Rayon Organon (New York); bright lustre, regular tenacity, all lengths, net weight, freight included.

d/ Middling 15/16"; average price of Raw Cotton Commission to spinners.

e/ Ashmouni; average price of Raw Cotton Commission to spinners.

f/ Standard viscose rayon staple fibre.

Table VI. Production of Natural Rubber[a] in Principal Areas, 1937, 1938 and 1946 to 1952

(Thousands of long tons)

Country or area	1937	1938	1946	1947	1948	1949	1950	1951	1952
Malaya:									
Estates	313.9	245.7	173.8	360.5	403.6	400.8	376.7	328.8	339.0
Small holdings	187.5	113.8	229.9	285.8	294.6	270.7	317.3	276.6	245.3
Total	501.4	359.5	403.7	646.4	698.2	671.5	694.1	605.3	584.2
Indonesia:									
Estates	244.7	172.3	- [b]	12.7	101.7	168.0	175.1	213.3	289.4
Small holdings	206.0	144.9	175.0[c]	265.2	330.6	263.9	521.3	591.9	448.6
Total	450.7	317.2	175.0[c]	278.0	432.3	431.8	696.5	805.2	738.0
Ceylon	72.5	50.0	94.0	89.0	95.0	89.5	113.5	105.0	96.5
Indochina	48.0	60.0	20.0	38.1	43.9	43.0	48.5	52.1	...
India	17.0	12.5	15.8	16.4	15.4	15.6	15.6	17.1	19.9
Sarawak	25.0	17.5	9.0[c]	36.7	39.7	39.5	55.6	42.4	31.8
Other Asian countries . . .	60.0	60.0	32.5[c]	80.0[c]	127.5[c]	125.0[c]	151.5[c]	143.5[c]	130.5[c]
Africa.	11.5	12.0	46.7[c]	38.5[c]	42.0[c]	45.0[c]	54.5[c]	72.0[c]	72.5[c]
Latin America . .	21.3	19.2	40.0[c]	35.0[c]	29.2[c]	27.3[c]	26.9[c]	29.8[c]	... [c]
Oceania	1.8	2.0	1.1	1.1	1.5	0.9	2.3	2.7	2.2
World total	1,210.0	910.0	837.5[c]	1,260.0[c]	1,525.0[c]	1,490.0[c]	1,860.0[c]	1,875.0[c]	1,775.0[c]

Source: International Rubber Study Group, Rubber Statistical Bulletin.

a/ Including latex.

b/ Although no estate production is indicated, a small amount of rubber was produced on estates in 1946. The great bulk, however, came from native sources.

c/ Estimated or partly estimated.

Table VII. Trends in World Production, Consumption and Stocks[a/] of Natural Rubber,[b/] 1910 to 1952

(Thousands of long tons)

Year	Production	Consumption	Year	Production	Consumption
		1910 to 1936			
1910	95.0	100.0	1925	527.5	552.5
1911	95.0	100.0	1926	625.0	542.5
1912	115.0	120.0	1927	610.0	595.0
1913	120.0	130.0	1928	655.0	685.0
1914	122.5	120.0	1929	870.0	805.0
1915	170.0	160.0	1930	825.0	710.0
1916	215.0	185.0	1931	802.5	682.5
1917	277.5	222.5	1932	710.0	690.0
1918	220.0	235.0	1933	852.5	822.5
1919	400.0	312.5	1934	1,032.5	920.0
1920	342.5	297.5	1935	830.0	940.0
1921	302.5	277.5	1936	867.5	1,045.0
1922	402.5	405.0			
1923	405.0	445.0			
1924	422.5	465.0			

Year	Production	Consumption	Stock [c/]	
			In producing countries [d/]	Total
		1937 to 1952		
1937	1,210.0	1,090.0	...	745.0
1938	910.0	955.0	170.0	707.5
1939	1,000.0	1,105.0	155.0	582.5
1940	1,417.5	1,110.0	160.0	880.0
1941	1,600.0	1,240.0	230.0	1,230.0
1942	640.0	765.0	315.0	1,020.0
1943	465.0	615.0	365.0	820.0
1944	360.0	387.5	405.0	715.0

Table VII. (continued)

Year	Production	Consumption	Stock c/	
			In producing countries d/	Total
	1937 to 1952 (continued)			
1945	250.0	262.5	375.0	660.0
1946	837.5	555.0	237.5	940.0
1947	1,260.0	1,110.0	230.0	845.0
1948	1,525.0	1,422.5	235.0	770.0
1949	1,490.0	1,437.5	237.5	720.0
1950	1,860.0	1,705.0	245.0	767.5
1951	1,875.0	1,500.0	242.5	812.5
1952	1,775.5	1,447.5	236.0	782.5

Source: International Rubber Study Group, Rubber Statistical Bulletin.

a/ Data on stocks not available before 1937.

b/ Including latex (dry rubber content).

c/ Excluding United States government stocks after June 1947, United Kingdom government stocks after July 1948, and French government stocks after January 1949.

d/ Estimated.

Table VIII. Production of Synthetic Rubber,[a] 1938 to 1952

(Thousands of long tons)

Year	United States		Canada		Germany[f]	Total
	General purpose[b]	Special purpose[c]	General purpose[d]	Special purpose[e]		
1938		1.0[g]	-	-	5.0[g]	6.0[g]
1939		1.8	-	-	21.9	23.7
1940	-	2.6	-	-	39.8	42.4
1941	0.2	7.9	-	-	69.4	77.5
1942	3.7	18.8	-	-	98.1	120.6
1943	182.3	49.5	2.5	-	115.8	350.1
1944	670.3	93.8	32.0	2.8	101.6	900.5
1945	719.4	100.9	36.6	9.1	...	866.0[h]
1946	613.4	126.6	38.8	12.2	15.6	806.6
1947	407.8	100.9	35.3	7.1	8.2	559.3
1948	393.9	94.5	32.2	8.2	3.4	532.2
1949	295.2	98.6	37.3	9.3	-	440.4
1950	358.2	117.9	41.9	16.6	-	534.6
1951	696.8	148.3	38.3	24.0	0.9	908.8
1952	637.2	161.3	50.1	24.2	4.9	877.8

Source: International Rubber Study Group, Rubber Statistical Bulletin.

a/ Including latex.

b/ GR-S.

c/ Neoprene, butyl and buna-N.

d/ Polysar S.

e/ Butyl and others.

f/ British Zone only since 1945.

g/ Estimated.

h/ Excluding German production.

Table II. Consumption of Natural and Synthetic Rubber, by Major Consuming Countries, 1937 to 1952

(Thousands of long tons)

Country or area	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
World consumption: a/	b/	b/	b/	b/	b/	b/	b/	b/	b/	b/	b/	b/	b/	b/	b/	c/
Total:	1,092.5 b/	940.0 b/	1,120.0 b/	1,152.5 b/	1,312.5 b/	877.5 b/	907.5 b/	1,125.0 b/	1,127.5 b/	1,447.5 b/	1,735.0 b/	1,902.5 b/	1,887.5 b/	2,285.0 b/	2,312.5 b/	2,332.5 c/
Natural rubber	1,090.0 b/	955.0 b/	1,105.0 b/	1,110.0 b/	1,240.0 b/	765.0 b/	615.0 b/	387.5 b/	262.5 b/	555.0 b/	1,130.0 b/	1,422.5 b/	1,437.5 b/	1,795.0 b/	1,500.0 b/	1,447.5 c/
Synthetic rubber b/	2.5	5.0	15.0	42.5	72.5	112.5	292.5	737.5	865.0	912.5	625.0	480.0	450.0	580.0	812.5	885.0
United States:																
Natural rubber	543.6	477.0	592.0	648.5	775.0	376.8	317.6	144.1	105.4	277.6	562.7	627.3	574.5	720.3	654.0	453.6
Per cent of world total	49.8	45.8	53.6	57.6	60.5	49.1	35.6	37.2	40.2	50.0	50.7	44.1	40.7	42.2	30.3	31.3
Synthetic rubber	---	---	1.8	2.6	6.3	17.7	170.9	566.7	693.6	761.7	559.7	442.1	434.4	538.3	758.9	806.5
Per cent of world total	---	---	11.7	6.0	8.6	15.7	58.4	76.8	80.2	83.5	89.5	92.1	92.1	92.8	93.4	91.1
United Kingdom:																
Natural rubber	114.6	106.9	122.7	147.1	156.5	97.1	74.4	45.2	27.3	96.6	153.6	193.7	184.3	219.7	234.2	197.3
Per cent of world total	10.5	11.2	11.1	13.2	12.6	12.7	12.1	11.7	10.4	17.4	13.8	13.6	12.8	12.9	13.6	13.6
Synthetic rubber	-	---	---	---	---	---	3.9	43.8	63.8	30.1	2.8	2.6	2.4	2.8	3.9	4.9
Per cent of world total	-	---	---	---	---	---	11.4	5.7	7.4	3.3	0.4	0.5	0.5	0.5	0.5	0.6
France:																
Natural rubber	60.0	57.5 b/	65.0	35.0	14.9	10.2	1.1	0.3	3.6	29.8	61.2	86.5	91.2	99.9	117.8	112.8
Per cent of world total	5.5	6.0	5.9	3.2	1.2	1.3	0.2	0.1	1.4	5.4	12.5	6.1	6.3	7.9	7.8	7.8
Synthetic rubber	-	-	-	-	-	6.1	10.2	5.4	17.4	28.7	12.6	7.4	8.3	7.4	8.6	11.3
Per cent of world total	-	-	-	-	-	5.4	3.5	0.7	2.0	3.1	2.0	1.5	1.8	1.1	1.1	1.3
Canada:																
Natural rubber	30.0 b/	25.0 b/	31.6	37.0	53.2	42.1	29.2	9.6	5.9	9.6	32.3	41.6	38.3	46.1	44.4	33.5
Per cent of world total	2.7	2.6	2.9	3.3	4.3	5.5	4.7	2.5	2.2	1.7	2.9	2.9	2.7	2.7	3.0	2.3
Synthetic rubber	-	-	-	-	-	-	3.7	24.7	35.9	29.6	29.2	20.6	18.1	22.6	28.4	37.6
Per cent of world total	-	-	-	-	-	-	1.3	3.4	4.2	3.2	4.7	4.3	4.0	3.9	3.5	3.8
Germany:																
Natural rubber	90.0 b/	97.5 b/	60.0	26.5	22.0	26.0	4.0	2.5 b/	1.0 b/	1.7	8.1	45.6	65.9	78.6	81.8	87.2
Per cent of world total	8.2	10.2	5.4	2.4	1.8	3.4	0.7	0.4	0.4	0.3	0.7	3.2	4.6	4.6	5.5	6.0
Synthetic rubber	2.5 b/	5.0 b/	14.0	40.0	50.5	69.0	88.5	80.0 b/	22.5 b/	13.9	7.9	4.4	2.2	2.4	4.4	9.1
Per cent of world total	100.0	-	88.3	94.1	89.7	81.3	30.3	10.8	2.6	1.3	1.3	0.9	0.5	0.6	0.5	1.0
Australia:																
Natural rubber	17.5 b/	12.5 b/	15.0 b/	20.0 b/	22.5 b/	13.1	14.8	14.4	8.5	15.6	23.0	26.3	27.7	34.2	35.9	---
Per cent of world total	1.6	1.3	1.4	1.8	1.8	1.7	2.4	3.7	3.2	2.8	2.1	1.9	1.9	2.0	2.4	---
Synthetic rubber	-	-	-	-	-	-	-	0.7	4.8	4.4	0.2	0.2	0.2	0.2	0.1	---
Per cent of world total	-	-	-	-	-	-	-	-	0.6	0.5	0.3	-	-	-	-	---
USSR: d/																
Natural rubber	30.5	26.8	30.0 b/	20.0 b/	45.0 b/	35.0 b/	22.0 b/	24.0 b/	17.0 b/	9.5 b/	35.0 b/	100.0 b/	105.0 b/	82.5 b/	63.0 b/	123.0 b/
Per cent of world total	2.8	2.6	2.7	1.8	3.6	4.6	3.6	6.2	6.5	1.7	3.2	7.0	7.3	4.8	4.2	8.5
Rest of world:																
Natural rubber	206.3	191.7	188.7	176.0	150.8	144.7	151.8	147.5	93.7	114.7	234.2	301.5	350.6	425.8	468.9	---
Per cent of world total	18.9	20.1	17.1	15.9	12.2	21.5	24.7	38.1	35.7	20.7	21.1	21.2	24.8	24.9	31.3	---
Synthetic rubber	-	-	-	-	---	---	15.8	18.8	27.0	46.1	12.8	2.8	4.5	5.4	10.2	---
Per cent of world total	-	-	-	-	---	---	5.4	2.6	3.1	5.1	2.1	0.6	1.0	1.0	1.3	---

Source: International Rubber Study Group, Rubber Statistical Bulletin.

a/ Excluding synthetic rubber consumption in the Soviet Union.

b/ Estimated or partially estimated.

c/ Data on synthetic rubber not available.

UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

Distr.
GENERAL

E/2455
8 June 1953

ORIGINAL: ENGLISH

Sixteenth session
Item 3(d)

ECONOMIC DEVELOPMENT OF UNDER-DEVELOPED COUNTRIES

Relative Prices of Primary Products and Manufactures in International Trade

Report by the Secretary-General

Chapter 1

INTRODUCTION AND SUMMARY

1. In paragraph 7 of resolution 427 (XIV), the Economic and Social Council requested the Secretary-General "to prepare, for consideration at an early session of the Council, a study of the relative movements of prices of various classes of goods moving in international trade". The present study, prepared in response to this resolution, is chiefly concerned with price relationships between commodities of which under-developed countries are important suppliers in world trade, and the commodities they import. Two earlier studies dealt with some of the problems discussed here: Relative Prices of Exports and Imports of Under-Developed Countries[1] and Instability in Export Markets of Under-Developed Countries.[2] The former compared the prices of large groups of primary and manufactured products and of some individual primary commodities in periods preceding and immediately following the Second World War, analysing the effects of price exchanges on the terms of trade of a number of countries. The second report dealt with the amplitude of fluctuations in prices, volume and export proceeds of the exports of primary producing countries from 1900 to 1950, but not with the prices of their imports.[3]

2. The present study extends the investigation through a period of spectacular price swings, from 1948 through June 1952, with 1938 as the pre-war reference. Thus it records the effects of the currency devaluations of 1949, the mild recession in the United States, the boom following hostilities in Korea, and the subsequent reversal of trends in the prices of goods traded internationally. In addition, this study differentiates prices of important individual commodities, both primary and manufactured, from the general price level.

1/ United Nations publication: 1949.II.B.3.

2/ United Nations publication: 1952.II.A.1.

3/ Attention may be called, however, to the very brief treatment, in chapter 4 of the report, of fluctuations in export proceeds in real terms, that is, in terms of imports they were able to buy.

Moreover, changes in relative price movements over a period of time, the opening and closing of "price scissors" are illustrated in greater detail.

3. As a rule, official indices of prices or average unit values in foreign trade are published by very large groupings; the United States index of changes in unit value, for example, consists of only five groups: crude materials, crude foodstuffs, manufactured foodstuffs and beverages, semi-manufactures and finished manufactures. Such comprehensive indices, although very valuable in recording changes in the general price level, tend to conceal substantial differences in the price behaviour of single commodities, differences which have been particularly pronounced in the period under investigation. Individual countries do not trade identical or similar groups or classes of commodities at average prices; they depend on a specialized type of exchange which, in the case of under-developed countries, frequently consists of a small number of export commodities and a far from uniform assortment of imports. Hence, a breakdown into single commodities, or narrowly defined classes of related commodities is required in order to disclose the full extent of individual price swings, their differing direction or amplitude and the varying time incidence of peaks and turning points.[4/]

4. The wide dispersion of price movements, a well known characteristic of trade in primary commodities, is not, however, entirely restricted to that class of goods. It is generally assumed that the price behaviour of manufactured products is much more uniform and steady. Existing indices for large commodity groups seem to bear out this assumption, but, as this study shows, aggregation conceals considerable diversity and some unexpectedly large price swings in certain important commodities. It is to be expected that differential price movements of raw materials entering into manufactured commodities in varying proportions will cause a fair dispersion of costs. Moreover, the raw material component of costs varies substantially from industry to industry and, in addition, a change of raw material costs affects the price of semi-manufactures more heavily

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4/ It is understood that a too minute breakdown may introduce random errors inherent in small numbers. Where the danger line actually lies is, of course, a matter of judgment in each instance, but in the present study, the emphasis on important commodities traded in volume minimizes this danger; moreover it creates an added opportunity for individual weighting. This question and related problems of homogeneity are discussed in appendix A.

than that of finished products which contain a greater component of other costs, derived from successive stages of processing. Hence, comprehensive indices relating to groups including a great many diverse commodities or commodities in various degrees of manufacture (such as, for example, "non-ferrous metals and manufactures thereof") fail to illustrate in concrete terms the variations in relative prices of clearly identifiable products.

5. Sudden changes in short periods and more gradual processes of adaptation can be much better observed in quarterly than in annual periods. Clearly, an annual figure for, say 1951, comprising the peak of the boom which accompanied the Korean conflict and the subsequent staggered price break, is not an adequate instrument for analysing the events which took place within that period, since such an average figure obliterates both the extremes of the price movements and the varying time incidence of their turning points. Therefore it was deemed necessary to present in this study data in quarterly intervals beginning with the fourth quarter of 1949.

Methods, scope and limitations of the investigation

6. The object of this study is to analyse price relationships[2/] in commodities customarily exchanges between industrial countries and those exporting primary commodities, usually economically less developed. Emphasis was thus placed upon a range of products comprising raw materials and foodstuffs imported by industrial countries and their own exports of similar commodities as well as of capital and consumer goods in finished and semi-finished form. As in the earlier studies mentioned above, the nature of the source material (especially in so far as availability and comparability are concerned) made it necessary in this case also to use the import statistics of a small number of industrial countries in preference to the export statistics of a large number of primary producers; in similar manner the export statistics of industrial countries were used to analyse the

2/ It will be noted that this report deals only with prices, not with volume of trade, export proceeds or the relationship between volume and price changes. With regard to prices, the study is not indicative of domestic prices, wholesale or retail, but only of average prices prevailing in foreign trade.

reverse flow. The data covered in this study were limited to those of the United States and the United Kingdom.[6] These two countries absorb a very large proportion of world exports of most primary commodities and their demand is normally the most prominent factor controlling prices.[7]

7. Recurrent balance of payment pressures which have characterized the post-war period have introduced some differentiation of price levels according to the origin of goods in soft or hard currency areas. Thus, an exporter of primary products may command a substantially higher price in return for accepting soft currency in payment, and to that extent United States import prices may sometimes be representative only of the lower end of the current international price range. Similarly some countries have introduced dual or multiple exchange rate systems or have negotiated bilateral transactions which differ widely from the trade patterns of the United States or the United Kingdom. On the other hand, in the years under study, the United Kingdom was still, though to a decreasing extent, a partner in long-term bulk purchasing agreements, a fact which would be reflected in United Kingdom import prices in the form of time lags and more moderate or discontinuous price movements than prevail in other countries with less elaborate controls. In some commodities and periods, the United States system of government purchase had similar effects.

8. As regards international trade in manufactured goods, the re-emergence of other suppliers, with different cost structures variously affected by inflationary pressures, tends to reduce progressively the importance of the United States or the United Kingdom as leaders in price movements. The results of this study were nevertheless considered sufficiently significant to permit conclusions regarding price movements in a major sector of world trade.

6/ Pressure of time and methodological problems militated against the inclusion of an analysis of the unit prices of exports and imports of countries in the Organization for European Economic Co-operation.

7/ The United States alone accounted for 54 per cent of world imports of coffee in 1948, and the United States and the United Kingdom together for 66 per cent of imports of rubber, 65 per cent of lead and cordage fibres, 62 per cent of cocoa, 60 per cent of tea, 58 per cent of copper and 57 per cent of zinc.

9. The price movements analysed are uniformly presented as unit value indices related to the calendar year 1949 as a base.[8] This reliance on unit values derived from trade statistics in preference to market prices was based on several considerations related to the extremely erratic nature of commodity markets during the past several years. It is virtually impossible to devise a system by which rapidly and dramatically changing market quotations can be averaged over three-month periods in such a manner that the average can be considered truly representative of actual trade transactions; in such periods traditional relations between international markets, and between spot and future prices, tend to be disrupted to such an extent that it becomes nearly impossible to tell which of several quotations represents more closely the changes that actually took place. Moreover, there is no way to weigh quotations by the volume of foreign transactions which they affect; not infrequently some very high market prices relate to a small volume of trade and would raise the average of quotations out of proportion to their actual significance.

10. The use of average unit values was therefore considered more appropriate for the purpose of this study, especially in view of the fact that these average values are of greater significance than price quotations since they reflect the actual transactions which in the aggregate determine a country's ability to import goods in return for its exports.[9]

11. The data used in this study, in so far as they are derived from United States and United Kingdom trade statistics, represent the average unit values of the indicated commodities, and of groups of commodities traded by the rest of the world with the United States or the United Kingdom. It would have been useful, for the purposes of this inquiry, to consider separately the unit values of commodities imported by these two countries from primary producing and more developed countries, and to proceed in a similar way for United States and

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8/ See appendix A for further comments in this respect.

9/ Unit values in international trade are derived by dividing the total value of exports or imports in a given period of time by the corresponding volume. For the discussion of some of the problems involved, such as homogeneity, time lags and transportation costs, see appendix A.

United Kingdom exports to these two groups of countries. This might have thrown light more directly on the impact of changes in relative prices on primary producing countries. It did not appear necessary to compile and analyse trade data according to this subdivision for the following reasons.

12. In so far as the Council in resolution 427 (XIV) may have wished to focus attention on the impact of changing price relations on primary producing countries, this purpose is partly served by the further study (E/2456) which is being submitted to the present session of the Council, in implementation of the request contained in General Assembly resolution 623 (VI). In this latter study, reference is made to the terms of trade of a representative group of countries rather than to relative prices of different classes of goods in general.

13. Separate analysis of different groups of countries in the general trade returns of major industrial countries would have involved statistical calculations disproportionate to the probable importance of this distinction in the final results. Reference was made earlier in this chapter to some factors which may, on occasion, cause United States and United Kingdom price averages to differ somewhat from those of the rest of the world. On the whole, however, since this study is concerned with ratios of changes in prices, and not the absolute levels of prices, no systematic bias is likely to be involved in studying changing price relations on the basis of United States and United Kingdom trade with the rest of the world as a whole. Moreover, the dispersion of price fluctuations in commodities originating in or destined for industrialized countries compared with primary producing countries is hardly greater than the dispersion of price fluctuations among different primary producing countries themselves, or, for that matter, among different industrialized countries. Hence, the procedure adopted in this study does not have a greater effect on the averages for individual countries by grouping all countries together than if primary producing countries alone were grouped.

14. Similar considerations also precluded a separate computation of unit values according to origin or destination, in the dollar area, the sterling area or other areas. This type of breakdown would have been of interest in evaluating the effects of devaluation, dollar deficits and related factors, but it was thought that these topics have been sufficiently covered in general terms in various issues of the World Economic Report and the Economic Survey of Europe. In the

absence of such a breakdown, it was not possible to determine whether the price of identical or comparable commodities originating in different areas was the same in the United States and the United Kingdom, in dollars or in sterling. Furthermore, total imports into these markets are made up of various goods originating in countries which may or may not have devalued their currencies. Thus, the composition and the proportion of goods of different origins may affect the average unit price. Where this appeared to be a factor which led to divergent price behaviour within commodity groups, it is discussed in the text of the report.

15. In view of the various limitations indicated above, it seems advisable to make explicit the meaning of the average unit value indices used in this study. The import unit value index approximates[10/] the average price, related to a 1949 base period, at which a given commodity was sold by its producers as a group, in specified periods. It may be assumed that this index is also fairly representative of dollar sales or sterling sales of this commodity in international markets. Similarly, the export unit price indices illustrate the price behaviour of goods exported by these two largest suppliers of manufactured goods in world trade.[11/] The ratio between the indices of import and export unit values expresses the quantum of United States or United Kingdom products against which a unit of primary commodities sold to these markets could, on an average, be exchanged. In the case of the United States, these ratios are fairly indicative of the general terms of trade prevailing in hard currency transactions of that nature. Similarly, the price ratios for the United Kingdom are largely representative of the exchange of commodities against sterling goods.

10/ For a discussion of the influence of the transportation component in the c.i.f. unit values of imports into the United Kingdom, see appendix A.

11/ The fact that trade between the United States and the United Kingdom represented, in 1951, for the United States only 4.5 per cent and 6 per cent of its imports and exports, respectively, and for the United Kingdom only 10 per cent and 5.5 per cent, shows that trade between these two countries does not greatly affect the indices.

16. This study is divided into four parts, the first two dealing with exports and imports of the United States and the United Kingdom, respectively, and the third comparing them, followed by a case study of triangular price relationship. Appendix A includes more detailed comments on the nature of the data, the methods employed and the limitations and problems of the study. Appendix B supplements the tables in the text by providing an additional list of commodities included in the group indices.

Summary

17. This study shows relative price movements of primary products, producers goods and consumers goods from 1948 through June 1952, a period of spectacular price swings in international trade. In the main, it differs from the earlier studies mentioned above in the following manner: (a) It contains a detailed breakdown into single commodities or very closely related groups of commodities; (b) it includes about thirty groups of semi-manufactures and manufactures which under-developed countries import in return for their exports of primary products; and (c) it gives an uninterrupted quarterly series of unit value indices from October 1949 to June 1952, inclusive.

18. The indices shown in this study reflect violent price swings in the period after the start of the Korean conflict. It was, however, found that, notwithstanding some similarities between price movements of individual commodities, considerable differences emerged. Moreover, this wide dispersion was not restricted to primary commodities but the differences in price behaviour of narrowly defined groups of manufactures were much greater than the customary indices of broad aggregates disclose. In fact the price movements of some manufactures were found to be greater than those of some primary products. As a result, the price relationships between primary products and manufactures cover a very wide range, which may be illustrated by a single item: in the second quarter of 1951 the terms of trade[12/] of the pair of commodities with the highest

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12/ The unit value index of the primary product divided by the unit value index of the manufactured product. In the previous studies mentioned the expression "terms of trade" was applied to the price ratio of a country's exports and imports, rather than to the price relation among commodities or classes of commodities. It was, however, considered convenient to use the expression "terms of trade" in this report to refer to the latter price relation.

ratio was nearly seven times the lowest ratio in the United States, and almost ten times that in the United Kingdom.

19. The unusual amplitude of price swings in this period may, in part account for the extent of the price range but even a less wide dispersion would command attention in view of its possible implications for the trade policy of primary producing countries. As a rule the prices of primary products and their instability have formed the centre of interest. To the extent, however, that the findings of this study can be generalized, the prices of essential manufactures emerge as a factor of much greater complexity and diversity than hitherto suspected. It follows that a detailed study of these imports, their prices and their composition, should supplement the traditional analysis of terms of trade.

20. For such detailed study, the customary indices of broad aggregates may not provide sufficient guidance. Important variations of price behaviour which this report brings to light would not be noticeable in comprehensive averages. The usefulness of a more elaborate breakdown may be seen in several ways, of which two will be pointed out.[13/] Developing countries may want to distinguish between price movements of producers goods and of specific types of consumer goods in view of the fact, verified by this study, that the prices of semi-manufactures tend to increase more than those of consumer goods in a period of general price rise. The price dispersion of primary products and manufactures which this study discloses are factors which governments will no doubt wish to observe closely in shaping their commercial policies. Hence, the methods explored in this study and its findings may be useful for future attempts to develop indices in sufficient commodity detail for fruitful terms of trade analysis.

13/ It may be well, however, to take this opportunity to recall that relative prices are but one determinant of a country's international position, though one whose importance has again been sharply pointed up by the fluctuations in the recent past.

Chapter 2

UNITED STATES IMPORTS AND EXPORTS

21. Data for United States imports and exports in this chapter are presented in three parts. The first analyses the price movements of United States imports as given in tables 1 to 5 in the form of unit value indices with 1949 as a base year; the second discusses the United States export unit value indices shown in tables 6 to 9. The third section presents the relative prices of a number of primary products imported into the United States and a number of United States exports of individual commodities and groups of manufactured goods, as expressed in tables 10 to 12.

22. It will be understood that the latter ratios are subject to the same limitations as the import and export indices from which they were derived. They are averages of a large number of transactions, irrespective of geographical origin or destination; therefore they are not examples of any specific transaction, nor necessarily representative of any physical exchange which in fact took place. In other words, these ratios illustrate the average terms of trade[1/] which prevailed in various periods for a primary product imported into the United States against exports of certain United States commodities, compared with the terms prevailing in the base period, 1949. Necessary caution in interpreting these indices precludes drawing conclusions from very slight fluctuations. Need for such caution may be found in the wide dispersion of unit values around the average of any single commodity classification; in changes of composition in some commodity groups,[2/] which are the greater the less homogeneous the group; and, finally, in the varying significance which individual indices may

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1/ See footnote 12 in chapter 1.

2/ It may be safely assumed that, given the short period under review, quality composition of each group has not changed significantly; in other words, that the items included are basically of the same type and efficiency. This is, of course, never entirely true where technical progress is general, sizable or very rapid and this factor adds another element of heterogeneity to some groups, notably machinery, compared with pre-war types. For tractors, for example, no comparison with pre-war was attempted because changes of design have fundamentally altered the range of services tractors can perform today.

Table 1. United States: Unit Value Indices of Imported Foodstuffs and Tobacco

(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Sugar[a]	42.8	97.7	99.0	105.9	99.1	101.3	105.2	109.4	106.3	104.0	109.5	102.9	101.7	108.6
Coffee[b]	25.4	92.3	94.9	113.2	147.1	158.1	172.4	177.6	180.9	187.9	189.0	187.9	188.2	188.2
Cocoa[c]	22.2	175.3	103.3	89.9	105.6	115.2	146.0	164.6	161.1	173.2	171.2	147.5	144.9	171.2
Tea	46.4	101.6	101.0	96.5	101.4	98.6	90.1	98.1	97.3	99.4	93.6	96.1	90.9	88.9
Bananas[d]	50.4	87.4	98.0	106.4	106.8	112.0	114.1	117.2	114.1	113.1	115.1	116.2	116.2	113.1
Beef, Canned[e]	111.1	98.5	100.9	98.5	97.5	98.8	96.3	91.7	96.6	96.6	97.2	100.9	100.3	105.5
Olive Oil[f]	36.2	109.4	102.7	90.8	63.2	51.9	55.1	74.3	78.9	86.8	83.0	88.5	85.1	80.3
Tobacco[g]	63.6	107.5	99.8	100.5	99.7	97.5	98.4	97.9	95.6	95.6	95.5	98.8	92.8	92.9

Source: United States official trade statistics.

a/ Including unrefined sugar 96 per cent, 97 per cent and 98 per cent and manufactured, 100 per cent.

b/ Raw or green.

c/ Beans only.

d/ Green or ripe.

e/ Including corned beef.

f/ In amounts of forty pounds or over.

g/ Including leaf for cigar filler, unstemmed; cigar leaf filler, stemmed; smoke-cured cigarette leaf, Latakia type; other cigarette leaf, unstemmed.

Table 2. United States: Unit Value Indices of Imported Raw Materials

(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Cotton, raw[a]	39.1[b]	106.6	104.7	88.2		111.1		117.3		154.9		165.8[b]	191.9[b]	110.2[b]
Jute, raw	24.3	91.3	103.9	64.5	67.3	70.5	78.5	77.8	72.9	81.1	71.5	85.4	96.6	102.6
Burlaps[c]	24.2	112.1	103.5	91.3	90.0	92.2	93.9	98.7	117.7	141.6	177.5	193.7	149.7	119.5
Sisal and henequen[d]	30.6	104.3	106.3	79.1	82.7	83.1	93.6	88.9	105.8	139.7	164.2	159.5	173.3	163.9
Manila or abaca[e]	22.6	75.5	101.5	96.1	94.8	96.4	88.8	99.8	104.5	119.7	121.1	114.3	101.2	83.0
Wool, four grades combined[f]	49.6	89.4	104.8	90.8	92.9	98.8	112.6	140.3	185.3	249.3	228.0	155.5	135.3	115.8
Worsted type finer than 56's	46.6	83.9	105.8	87.8	88.7	91.1	103.2	130.6	165.3	222.6	201.6	145.2	123.4	104.0

Source: United States official trade statistics.

a/ 1949 through September 1951, weighted by quantity in four categories according to staple length. Wide fluctuation in quantities precludes appraisal of the index within too narrow limits although seasonal fluctuations are minimized by the contraction into comparable periods. In 1938 and 1948, and since October 1951, classification in only three categories affects the weighting in these periods.

b/ Not strictly comparable with other index figures because of changes in classification.

c/ Not bleached.

d/ Combined in a single customs classification.

e/ Fibre and tow.

f/ Carpet wool, not merino; and worsted type, not finer than 40's; combing wool, finer than 40's but not finer than 44's; and combing wool, finer than 56's, all in the grease.

Table 3. United States: Unit Value Indices of Imported Raw Materials
(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Iron ore[a]	50.1	90.1	99.9	100.5	90.3	111.4	112.9	109.0	95.0	122.5	122.7	125.1	149.7	173.2
Manganese ore[b]	80.3	82.7	97.5	105.7	108.1	116.6	115.8	122.6	116.9	123.5	132.9	142.9	147.7	161.2
Chrome ore or chromite[c]	46.2	106.4	103.4	88.5	74.2	83.9	94.2	96.3	87.6	87.3	96.7	98.1	115.1	119.4
Bauxite, crude[d]	127.2	104.5	99.3	101.7	104.5	101.2	103.6	108.2	105.5	106.0	105.2	98.8	108.5	106.3
Copper:[e]														
Concentrates	46.6	97.4	104.2	85.7	85.7	96.3	108.5	116.9	119.0	121.2	128.6	133.3	137.6	138.1
Unrefined, blister, converter, etc	48.6	111.6	106.6	88.4	85.1	95.0	97.2	127.6	130.9	132.0	135.9	145.9	158.6	155.2
Refined, ingots, plates, bars	52.0	107.0	103.0	86.5	87.0	92.5	109.0	118.5	121.5	123.5	138.0	136.0	136.0	141.0
Combined index	50.1	106.4	104.2	86.9	86.3	94.0	105.8	120.7	123.6	125.4	135.7	138.2	142.4	144.3
Lead:[f]														
Ores, flue dust, mattes, etc	15.6	87.2	100.0	105.7	92.9	70.2	76.6	78.0	89.4	86.5	98.6	103.5	107.1	113.5
Pigs, bars	14.3	2.2	106.1	84.4	72.1	68.7	77.6	101.4	110.9	111.6	129.3	129.3	127.2	118.4
Combined index	14.7	104.6	104.2	90.6	78.3	69.1	77.2	94.2	104.3	103.9	119.9	121.4	121.0	116.7
Tin:[g]														
Ores	...	42.9	101.1	97.3	77.8	76.6	87.2	100.3	137.3	157.5	140.7	112.7	117.9	115.6
Bars, blocks, pigs, etc	40.6	94.6	102.3	93.1	75.1	78.4	84.6	96.3	134.3	113.4	108.3	98.7	118.1	121.0
Combined index	40.6	75.5	101.9	94.7	76.1	77.7	85.5	97.7	135.4	129.7	120.2	103.9	118.0	119.1
Zinc:[h]														
Ores	64.7	82.4	103.9	86.3	74.5	56.9	121.6	119.6	135.3	137.3	143.1	170.6	207.8	196.1
Blocks, pigs or slabs	21.4	115.4	111.1	79.5	82.9	90.6	110.3	141.0	141.9	146.2	147.0	167.5	170.9	161.5
Combined index	36.5	103.6	108.4	81.7	79.8	78.6	114.0	133.2	139.3	142.7	145.3	168.2	183.5	173.3

Source: United States official trade statistics.

a/ Gross weight, disregarding metal content.
b/ Manganese content.
c/ Chromic oxide content. 1938 not entirely comparable with subsequent periods.
d/ Copper content.
e/ Lead content.
f/ Tin content. No ores included in 1938.
g/ Zinc content.

Table 4. United States: Unit Value Indices of Imported Raw Materials

(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Hides and skins: a/														
Cattle hides	46.5	130.8	94.1	110.3	90.8	95.7	119.5	125.4	143.8	195.7	172.4	145.9	125.9	113.5
Sheep and lamb skins b/	43.3	150.6	94.5	82.2	86.8	124.5	120.6	131.0	146.3	175.5	206.7	174.8	120.9	109.2
Goat and kid skins c/	34.2	108.0	106.1	87.0	87.6	91.6	94.7	109.5	130.6	129.7	115.3	103.6	82.4	72.6
Combined index	37.3	119.1	101.1	88.2	87.7	98.9	102.5	111.4	121.2	141.4	140.0	121.2	94.6	84.1
Rubber, natural d/	87.2	115.7	103.5	91.1	97.2	111.5	153.8	247.1	306.9	325.4	299.4	263.9	264.9	232.5
Mahogany e/	52.4	104.8	100.9	96.5	83.9	87.8	93.7	97.2	105.6	107.7	104.8	107.4	103.3	92.6
Sawed pine	31.9	112.9	100.2	98.9	106.7	114.5	126.8	133.4	144.7	155.8	141.2	142.3	147.7	153.1

Source: United States official trade statistics.

a/ Wet salted, over 25 lbs.
b/ Pickled.
c/ Dry and dry salted.
d/ Milk or latex, other crude.
e/ Unmanufactured and planed.

Table 5. United States: Unit Value Indices of Imported Raw Materials
(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to Third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Asbestos[a]	111.5	89.0	98.8	102.8	98.7	107.6	91.7	90.2	92.5	89.3	102.5	93.1	104.4	107.7
Mica[b]	25.2	86.1	99.3	101.8	90.3	89.8	88.6	88.5	72.2	75.6	85.0	76.9	74.8	92.0
Sodium nitrate	48.3	84.3	100.0	100.2	97.6	93.4	94.2	95.6	96.4	96.8	94.0	99.4	106.8	106.3
Petroleum, crude	33.2	100.8	99.5	101.4	99.4	96.7	94.4	95.3	95.8	95.8	93.5	99.4	99.0	97.1
Oil seeds:														
Castor beans	35.3	137.3	103.9	92.2	100.0	102.0	98.0	133.3	152.9	192.2	203.9	196.1	205.9	184.3
Copra	22.2	151.9	102.5	95.1	101.2	108.6	103.7	117.2	124.7	144.4	96.3	93.8	86.4	66.7
Oil and waxes:														
Tung oil	59.7	109.1	98.9	102.2	119.9	114.5	109.7	117.2	149.5	191.4	180.1	184.9	191.4	198.4
Coconut oil	21.2	134.2	91.8	125.3	87.0	91.8	87.0	122.6	107.5	119.2	90.4	81.5	72.6	54.8
Palm oil	26.0	134.4	108.4	64.1	74.8	80.2	84.0	90.8	93.1	115.3	131.3	152.7	161.8	138.2
Carnauba wax	44.5	103.2	97.2	109.3	106.3	103.6	114.2	112.8	128.8	130.7	112.6	132.4	123.6	118.0

Source: United States official trade statistics.

a/ Unmanufactured amosite crudes; figure for 1938 not entirely comparable with subsequent periods.
b/ Splittings, not cut, not above 0.0012 of an inch in thickness.

have for countries with differing industrial or foreign trade structures and international exchange relationships. The difference in price behaviour of various commodities is, however, so striking that mere statistical deviations cannot affect the outcome.

United States Imports

23. Tables 1 to 5 present selected unit value indices of the most important foodstuffs and raw materials imported by the United States, mostly in crude form, but including a few processed items. Even the most casual inspection of the tables discloses a great dispersion of price movements among the items contained in each group. Thus some prices rose continually over the period, almost without interruption, while others did so only after an initial dip in 1949 or early 1950, owing to the effects of recession in the United States or of the devaluation of sterling; many commodity prices reached a peak in 1951, usually around the second or third quarter, but a few recovered and rose once more. The more pronounced price increases, such as those in coffee and rubber, have attracted most public attention, while the fact that unit values of some commodities barely rose at all, or even dropped, does not appear to be so familiar, though this group includes items like tea, tobacco, mica, sodium nitrate and crude petroleum.

24. Even subspecies of the same commodity often display different price behaviour, as is noted below for tobacco and wool. The most frequent reason is that they have distinctive characteristics of quality or type, and are frequently used for differentiated end products; thus various subspecies at a certain period may be subject to different demand or supply situations. Another reason may be found in the fact that the unit values given here represent an average for commodities originating in several countries, many of which may have been differently affected by exchange devaluations or other factors, and the combinations of countries of origin may change in a period of time.

25. Numerous commodity studies which are available make it unnecessary to discuss here the general price movements of individual commodities. Average unit value series usually follow market quotations closely with a time lag

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of three to six months. The following observations are therefore limited to features of the unit value indices which seem to require explanation or comment.

26. Among imported foodstuffs the price relationship between manufactured sugar, 100 per cent, taxable, and various unrefined, tax free grades was not always stable but this affected the combined weighted index only slightly. Similarly, all types of coffee, although different in origin or grade, are contained in a single United States customs classification; however, this lack of homogeneity in the group is compensated by a rather uniform tendency of upward movement. This is also true in the case of cocoa, while the unit value of tea was occasionally affected by a change of composition as between cheaper and better grades.

27. The composite index of tobacco consists of two very different groups which supplement, and partly compete with, domestic United States types. Most cigar tobacco in the United States is imported, leaf for wrapper coming from Cuba and the Philippines, filler chiefly from Cuba. From 1949 on, these types have not changed much in price. Imported cigarette tobacco, however, which comes chiefly from the Balkans and the Near East, was affected by exchange developments and demand factors in Europe. Thus, the price of the Latakia type dipped in late 1949 and 1950 but rose later, while the residual "other types", the largest item of the group, displayed a persistent downward trend which was largely responsible for the movement of the combined index.

28. Bananas are imported from a number of countries in Latin America; changes in composition affecting the origin may account for the irregular movement of the average value index. It should be noted, however, that this commodity is largely controlled by intra-company transactions and its price movements may therefore be less autonomous than that of other commodities.

29. The divergent price movement of the three types of hides and skins can be, in part, explained as direct or indirect effects of devaluation. Cattle hides, originating in Canada and Argentina, were less affected, the dip in 1949/50 being due to slackened demand in the United States. Prices of sheep and lamb skins from Australia and New Zealand and goat skins from India and Africa felt the impact of the exchange differential in 1949/50, but from there on

their course differed widely. Nevertheless, the combined index displays a rather smooth curve which conceals, rather deceptively, the great divergence of its component movements.

30. Cotton imported into the United States is chiefly of short-staple or long-staple, the former coming largely from India, the latter from Egypt and Peru. The price movements were, therefore, influenced by different factors, and the combined index conceals sizable changes in composition. The sharp drop of jute prices in 1949 was not caused by devaluation, to which Pakistan, the chief supplier, was not a party; it was the cumulative result of a price decline from a very high post-war peak, accelerated by the general recession. The full amplitude of price swings of jute was not fully reflected in United States markets which are not its largest determinant; moreover, some high quotations did not apply to large imports. A sharp drop in United States imports during the 1951/52 season was also a contributing factor to price movements, which are somewhat out of line with market quotations. Raw jute is, in the United States, used for carpets and other purposes rather than the manufacture of burlaps. The latter are chiefly imported already woven, the steep price rise being due to shortages in supply from India.

31. Average unit prices of wool are influenced by the fact that no single group is really quite homogeneous; in addition, the wool represents a combination of imports from sterling areas and Latin America. Moreover, fine combing wool prices did not, after an initial dip due to devaluation, rise as steeply as other kinds. This was caused by a shift of imports from Latin America to Australia, and a cycle of widening, narrowing and widening again of the customary price differential between medium and fine wools.

32. United States customs statistics list the metal content of metal ores except iron ore and bauxite. Unit prices based on metal content minimize the consequences of averaging imports from different origins whose metal content may vary widely. The somewhat erratic behaviour of the iron ore index may be related to differences in the iron content of imports, which may vary between 55 and 68 per cent, that is, the dip in the first quarter of 1951 was hardly a genuine price movement, but was probably connected with

a shift in composition compared with the preceding or following period, when more ore arrived from Chile relative to Canada, Sweden or Brazil. A similar situation may also prevail in bauxite, a commodity which is, in addition, largely controlled by intra-company transactions.

33. The case of copper is complicated by the differing proportions originating in various countries in the three stages of processing identified in the customs returns for copper imports. Since concentrates and refined copper are obtained by the United States almost exclusively from Western Hemisphere sources, and imports of unrefined metal contain only a minor share of sterling copper from Northern Rhodesia, the sizable price dip in 1949/50 cannot be attributed to devaluation but to reduced demand, copper having reached a post-war price peak in 1948/49. When demand recovered, prices rose again, but after mid-1950, price ceilings and bilateral purchase agreements kept the price in the United States below world market prices. The greater average price rise in unrefined copper compared with refined metal may be accounted for by the larger share of Chile's lower price "agreement copper" in the volume of the latter variety.

34. In the case of lead, the price fall of 1949/50 was due to slackening of demand rather than lower costs of sterling metal, which forms but a small proportion of United States imports. The difference in price behaviour of ores and metal would seem puzzling unless the price relationship is viewed as reflecting a considerable lag of ore prices behind those of metal.

35. United States imports of tin are a composite of concentrates, chiefly from Bolivia and Indonesia, and of metal, mostly of Malayan origin. Sterling devaluation depressed the dollar price of tin in 1949; further reductions resulted from the resumption of free trading in the tin market in November 1949, reflecting an excess of production over consumption before the conflict in Korea. The subsequent spectacular price rise in the metal was reflected only to a very much smaller degree in average unit prices, another instance when extremes of market price did not affect average unit values to a comparable extent. The purchase policy of the United States Government, especially the refusal to buy at top prices, moderated the price swings in the United States. It may be noted that the amplitude of price swings was greater in ores than in metal.

36. United States imports of zinc originate almost exclusively in the Western Hemisphere. Consequently, the price decline in 1949/50 was caused, not by devaluation, but by slack demand. The subsequent increase in unit values was lead by zinc metal and, once again, the amplitude of the price movement was greater in the unsmelted stage.

37. When evaluating the price movement of crude petroleum, it must be recalled that trade in this commodity is chiefly controlled by inter-company transactions and the price is little affected by fluctuations of demand and supply. This explains the steadiness of import unit values.

38. Oil-seeds, oils and waxes were affected by factors too individual to be discussed in detail in this study. An inspection of the six series of indices offered in table 5 discloses great variety in movement and a frequent lack of coincidence of peaks and troughs or turning points. While all commodities were affected by the general events of the period, these were clearly influenced even more by specific factors.

United States Exports

39. While this study is chiefly concerned with the exchange of primary products for manufactured goods, it was considered advisable to present information concerning a small number of foodstuffs, raw materials and fuels of which the United States is an important exporter in tables 6 and 7, and to give a few comments about some of the price movements shown in the tables.

40. The United States assumed greater importance as an exporter of rice when the export potential of the traditional producers of rice in the Far East was found to be greatly reduced after the war. The relatively high price during 1950/51 reflects the effect of smaller output in the face of persistent demand. While the rice export unit value index follows United States market quotations rather closely, this is not altogether true in the case of wheat, affecting the price of wheat flour as well. The price drop in 1950/51 was more pronounced in average export unit values than in market prices. The reason

Table 6. United States: Unit Value Indices of Exported Foodstuffs and Tobacco

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Wheat and wheat products:														
Wheat	36.5	112.9	100.8	96.5	68.7	82.6	77.7	69.6	78.6	96.7	89.5	85.9	89.9	102.4
Wheat flour	42.8	127.6	102.0	86.9	83.2	76.3	78.7	74.3	92.1	94.5	94.9	88.9	91.1	97.2
Combined index	37.5	115.1	101.0	95.0	87.9	81.7	77.9	70.3	80.6	87.9	90.3	86.3	90.1	101.8
Rice, milled[a/]	32.8[b/]	134.7	105.7	91.0	85.3	95.1	95.4	114.9	122.0	125.2	112.1	98.3	101.9	109.4
Lard	61.0	177.4	102.7	87.7	80.1	84.9	102.7	109.6	133.6	138.4	129.5	120.5	109.6	87.7
Milk[c/]	62.1	108.2	100.1	99.8	96.2	92.5	96.1	101.5	107.4	115.8	112.8	86.2	111.5	114.4
Tobacco[d/]	72.5[b/]	100.0	98.2	103.4	94.4	77.3	112.7	117.5	120.1	121.9	123.3	132.3	136.3	136.9
Cigarettes	70.4	99.0	100.7	97.7	116.5	114.7	112.9	112.1	113.6	114.3	120.2	118.7	120.6	125.7

Source: United States official trade statistics

a/ Includes brown rice, broken rice and screenings, except in 1939, when it includes also flour and meal but not screenings.
b/ Not strictly comparable with the other figures because of changes in classification.
c/ Evaporated, unsweetened and whole, dried.
d/ Including also unstemmed in 1938.

Table 7. United States: Unit Value Indices of Exported Raw Materials, Fuel and Petroleum Products

(1949 = 100)

Commodity or product	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Cotton a/	30.9	108.6	101.5	96.4	95.2	99.6 / 100.6	112.1	126.2	134.9	145.6 / 135.9	123.2	121.4	128.1	125.4
Sulphur, crude	84.8	100.4	99.6	101.5	103.4	100.3	100.9	102.6	116.8	118.9	117.4	119.6	125.6	130.3
Coal, bituminous	43.5	102.5	100.3	97.1	104.7	97.3	94.9	98.0	105.2	109.3	102.6	108.9	112.0	102.8
Coke b/	41.1	98.6	101.3	95.5	105.7	113.1	94.0	99.3	105.7	110.8	115.4	127.7	115.6	114.1
Petroleum products:														
Gasoline and other motor fuel	162.0	99.7	99.3	105.5	99.9	101.0	106.5	104.4	103.8	104.7	106.2	109.9	109.0	111.7
Gas oil, distillate and residual fuel oil (combined index)	47.7	121.7	109.1	90.4	89.2	91.0	94.8	102.3	99.3	109.9	113.9	113.7	107.6	116.5
Lubricating oils, red and pale	71.6	116.0	109.0	88.8	84.7	79.8	82.2	97.5	104.3	105.4	114.3	117.3	116.7	110.6
Paraffin	47.1	147.7	109.3	89.9	87.4	87.9	84.4	99.3	112.6	119.1	115.1	107.0	99.6	90.1
Combined index	107.0	112.4	101.3	96.4	93.4	93.6	97.3	102.2	103.6	107.4	110.5	111.9	109.2	110.7

Source: United States official trade statistics

a/ 1938, 1948 and 1952 indices are based on a classification different from that used in 1949 to 1951 and are therefore not entirely comparable. Fluctuations in quantities affected the quarterly indices; therefore January to September figures are given for 1950 to 1951 in analogy with cotton imports.

b/ Excluding petroleum coke.

Table 8. United States: Unit Value Indices of Exported Producers Goods

(1949 = 100)

Product	1938 a/	1948	1949		1950				1951				1952	
			First three quarters	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter
Steel b/	59.7	99.2	101.2	97.5	96.3	97.5	95.9	101.7	113.0	119.8	119.3	118.7	118.1 c/	119.7 c/
Aluminium	218.6	94.0	101.6	90.9	85.5	82.7	80.5	95.6	99.4	114.8	112.6	115.7	116.0	101.6
Copper products b/	46.7	106.1	104.6	87.6	90.2	99.9	96.7	110.4	117.1	121.5	125.1	145.5	143.3	139.7
Tractors:														
Tracklaying d/	... e/	107.7 e/	101.3	99.9	100.0	99.1	102.8	108.8	112.6	114.4	113.3	111.0	115.6 e/	114.2 e/
Wheel type f/	... e/	... e/	100.1	99.4	105.6	99.6	103.5	109.5	111.2	108.8	110.3	112.2	... e/	... e/
Motor trucks b/	... e/	... e/	99.98	101.1	95.1	91.0	90.4	93.1	96.6	101.8	101.8	103.1	104.6	107.6
Electrical machinery and apparatus	57.3	82.5	100.1	100.95	101.9	91.2	91.3	91.9	95.4	103.3	105.0	110.2	115.3	118.9
Chemicals:														
Combined index b/	53.8	116.1	99.4	100.8	89.0	95.1	92.7	101.7	116.0	125.5	128.1	118.7	122.2	112.2
Soda ash and caustic soda	59.1	158.7	105.1	94.1	78.5	83.9	87.4	98.0	136.9	169.1	143.8	116.3	109.2	106.1
Fertilizers g/	50.3	97.3	100.7	97.9	92.5	90.7	96.9	112.4	121.4	139.9	137.1	119.4	121.8	126.2
Copper sulphate	57.2	113.0	104.2	85.1	92.4	92.4	102.7	113.0	121.8	141.0	161.4	165.8	157.0	143.8
Cement, standard	55.3	100.4	101.2	99.2	82.8	71.0	78.7	83.2	92.1	91.4	94.9	90.7	87.5	98.4
Glass, plate and sheet	82.5	98.4	101.3	93.7	94.7	115.7	104.9	109.0	112.1	118.4	114.3	128.0	128.6	109.2
Textile yarns:														
Cotton yarn d/	38.7	113.1	103.4	95.8	95.0	93.4	96.8 h/	111.1	128.0	130.8	134.4	133.4	119.6	109.5
Wool yarn ... i/	71.0	94.2	105.7	99.1	102.6	111.4	190.4 h/	114.4	90.9	100.4	192.2	165.9	151.1	141.3
Synthetic yarn j/	...	102.5	98.5	106.1	108.1	102.4	112.5	123.3	131.8	120.4	118.4	110.5	100.4 c/	96.2 c/
Agricultural machinery and equipment b/	...	88.5	99.5	101.5	101.3	101.0	100.9	101.2	103.3	108.7	111.9	112.5	112.3	112.4
Construction machinery and equipment b/	...	88.3	99.7	100.9	100.7	100.7	100.6	100.7	104.3	109.7	114.8	115.1	115.2	115.3
Electrical machinery and equipment b/	...	94.0	100.3	99.0	97.4	97.4	96.5	96.9	103.5	111.4	116.7	116.7	117.1	116.9

Source: United States official trade statistics, except 1950 to 1952, which were taken from Department of Commerce, Survey of Current Business (Washington, D.C.), March 1952.

a/ In many instances, the subdivision of component items was less elaborate in 1938, reducing the extent of individual weighting of prices. In some instances, a somewhat reduced sample had to be used for 1938, making the index figure for 1938 comparable with later years in a broad manner only.

b/ See appendix B for items included.

c/ Comparability possibly slightly affected by change in weighting system resulting from partially different classification.

d/ Wheels, plates and strip.

e/ Cathodes, billets, ingots, bars, bare wire, pipes and tubes.

f/ Does not include 95 HP or over; 1948 comparable with later years only to a limited extent because of a partial change of classification in 1949.

g/ Complete change of classification prevented computation of properly weighted index.

h/ Gasoline type only; diesel trucks not included.

i/ Ammonium sulphate and normal super-phosphate, 25 per cent or less.

j/ Carded grey; bleached and coloured; combed, not finished; and finished, not mercerised.

k/ An unusuall, big export unit value in shipments to Austria impairs comparability.

l/ Nylon; acetate rayon filament and viscose filament.

m/ United States wholesale price index, with time lag of six months.

Table 9. United States: Unit Value Indices of Exported Consumer Goods
(1949 = 100)

Product	1938 a/	1948	1949		1950				1951				1952	
			First three quarters	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Fourth quarter	First quarter	Second quarter
Textile fabrics:														
Cotton fabrics b/	29.7	132.9	100.4	98.7	101.4	95.5	102.9	110.6	130.2	136.5	122.7	111.6	109.2	108.4
Wool fabrics c/	56.3	92.8	99.1	107.4	95.5	92.8	85.7	89.3	144.5	139.0	119.0	162.9 d/	119.7 e/	98.3 e/
Synthetic fabrics f/	... g/	138.9	102.0	96.2	98.3	93.5	98.0	120.7	113.0	117.3	110.4	104.8	97.2 e/	92.9 e/
Clothing h/	47.0	121.5	99.9	100.0	97.5	95.2	99.9	111.7	110.4	108.8	108.1	100.4	91.5	87.8
Paper and paper board i/	47.4	116.2	102.3	93.4	87.1	92.8	100.1	103.5	116.6	130.6	132.2	129.1	126.1	120.1
Passenger cars	42.4	98.2	101.2	94.6	98.2	100.7	101.9	105.4	103.6	108.0	108.0	109.4	115.0 e/	119.5 e/
Household utensils hollowware, etc. j/	45.8	101.2	100.5	97.9	100.5	101.2	97.5	100.8	100.1	106.2	103.9	103.6	105.3	105.2
Heating, cooking and plumbing equipment k/	63.2	122.8	102.8	91.8	93.1	93.0	92.2	96.6	106.3	100.6	108.4	113.6	124.4 e/	121.4 e/
Refrigerators and washing machines l/	53.1	113.4	102.0	93.3	97.1	94.9	92.4	96.7	96.6	101.9	101.2	106.3	107.9 e/	112.6 e/
Rubber manufactures, automotive m/	73.9	104.8	101.7	95.4	99.4	98.1	100.4	113.4	118.3	121.6	122.4	119.6	122.7 e/	121.2 e/
US unit value index of semi-manufactures n/	...	105.7	101.4	94.5	96.3	95.4	98.4	105.3	116.8	121.4	121.3	121.1	119.5	118.8
US unit value index of manufactures n/	...	104.8	100.8	96.5	97.3	95.5	96.2	101.8	106.0	109.4	108.7	108.5	109.2	109.2

Source: United States official trade statistics.

a/ See footnote a/ in table 8.
b/ See appendix B for items included.
c/ Wool and mohair fabrics, not over 10 ounces per square yard; and over 10 ounces per square yard; all computations made by the pound as unit, not by the square yard.
d/ An unusually high export unit value in shipments to Turkey impairs comparability.
e/ Comparability possibly slightly affected by changes in weighting system resulting from partially different classification.
f/ Woven filament yarn fabrics, wristed and others; woven spun yarn fabrics, printed and others.
g/ Complete change of classification prevents computation of properly weighted index.
h/ Including only men's cotton hosiery and shirts; women's and children's synthetic dresses, not knit; women's and children's hosiery, seamless and full fashioned (not including nylon hosiery in 1938); and men's synthetic socks.
i/ See appendix B for items included. The composition of the group changed, compared to the base period, with newsprint figuring larger in recent periods.
j/ Including tinned and galvanized hollowware, enamelware, aluminumware, razor blades.
k/ Including mechanical and electrical refrigerators, condensing units, automatic and non-automatic washing machines.
l/ Including only passenger tire casings and fan belts for automobiles.
m/ Converted to base 1949 from base 1929/35 and 1936/38. This is an index with moving crossed weights, chained, thus different in construction from those used in this study.

lies in the operation of the International Wheat Agreement[3/] which established lower prices than those prevailing in the market; the export price average in 1950/51 was depressed by a larger proportion of exports under the agreement than was the case in either the preceding or the following period.

41. The export index of tobacco is based on the largest item in exports, the flue-cured type. An index for exported cigarettes which is also given displays a somewhat different price movement.

42. The largest part of United States exports of cotton is of the medium-staple variety. The value of the quarterly index is impaired by fluctuations in composition, and also by seasonal demand factors, availability of exchange for imports of United States cotton, and other factors. Figures for nine-month periods comparable with those given for the import index are also presented in the tables.

43. In the field of mineral exports, the price movement of sulphur is of some interest because this basic industrial raw material was in very short supply after mid-1950. An efficient system of international allocation succeeded, however, in minimizing the effects of the sulphur shortage on prices. The unit value index of coal kept reasonably close to market prices; it should be realized, however, that both coal and coke are heterogeneous groups, each statistical classification comprising a number of different varieties and grades. The combined index of petroleum products and its component indices display a fairly common pattern, except for some slight variations.

44. In discussing the indices of manufactured products, it is necessary to bear in mind the system of statistical classification in the United States, especially of machinery, which is listed by number of items exported rather than by weight. While there may exist a somewhat tenuous relationship between weight and price, a computation by numbers only, including all sizes

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3/ The maximum price under the agreement was, until recently, $1.80 a bushel, a figure much lower than any open market quotation during the period covered by this investigation. The maximum price of $2.05 under the recently concluded new agreement is also lower than current market prices, and it can, therefore, be assumed that United States export unit values will continue to represent a mixture of "agreement wheat" and "free wheat".

of a certain machinery, results in a serious lack of homogeneity.4/ It was therefore not possible to present an elaborate series of export unit value indices of machinery for the United States, but only a rather small number of items in the electrical field and the tractor group, which were sufficiently subdivided by type and size. However, a new series of United States domestic wholesale prices of agricultural machinery and equipment has been added to table 8, with an allowance of six months to provide for an average time lag for manufacturing and exporting. In order to permit comparison with the export series presented here, the wholesale price index, similarly recalculated, is also shown for electrical machinery and apparatus, though the coverage in the wholesale price index is doubtless more comprehensive than in the export series. To the extent that the wholesale price index and the export unit value index do not coincide, the difference in composition is probably responsible; it is also reasonable to assume that the classes of machinery entering into the domestic index are not always identical with those exported.

45. Groupings of other commodities were not free of problems of heterogeneity but it was usually possible to assemble a fairly representative group of reasonably homogeneous items, presented in tables 8 and 9, comprising producers' goods and consumers' goods respectively. This functional division was considered of greater interest to countries in the process of economic development than a distinction between semi-manufactures and manufactures. The official United States index for these categories, adjusted to the base of 1949, is included in table 9 for comparison.

46. The first three items on table 8 are products of steel, aluminium and copper in an early stage of manufacture, such as sheets, bars, rails, pipe and wire. The price increase, which is rather small compared with European quotations at that time, may be explained by the fact that the United States operated during a period of acute shortages under fairly rigid price controls, which included exports and was particularly effective on the mill level. In

4/ See appendix A.

comparing these price levels with those for the imported raw materials in 3, the familiar pattern of a wider swing in the prices of raw material prices than of manufactured items does not readily appear. Iron ore prices did move higher than those of its product but copper prices did not and bauxite prices were higher only towards the end of the period. The reason is found in the important place of domestic resources in the industry's structure. Iron ore and copper are mined in the United States, and foreign material is imported only to the extent necessary to supplement domestic supplies. The price of the domestic metals was kept low by ceiling regulations, with the result that the higher priced imports could be fitted into some products only with difficulty and in varying proportions. It is therefore not possible to establish a clear price relationship between manufactured goods and imported raw materials alone. With regard to aluminium two factors need to be considered. The raw material imports are largely controlled by inter-company transactions. Furthermore, the reduction of bauxite into aluminium is a huge and complex industrial operation which requires a vast expenditure of domestic resources, especially power; hence the price of the imported raw material would not be expected to be the most decisive factor in prices.

47. In analysing the price movement of more highly manufactured products of steel and copper, we largely find moderate price increases which are not, however, uniform. Trucks, rather surprisingly, increased least, less than tractors and electrical machinery and apparatus. The indices for chemicals, on the other hand, rose much higher. The combined index[5/] conceals a great deal of variety among the components, even though the sample consists mostly of heavy chemicals, pigments and other items chiefly used by industry, in addition to a few bulk items for agricultural use. This diversity can be noted in the amplitude of the price swings and in the lack of coincidence between turning points, which range from the second quarter of 1951 to the first quarter of 1952. Most noteworthy is the price movement of soda ash and caustic soda, important industrial chemicals used in large volume in many

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5/ Including more items than the four groups singled out for separate presentation; see appendix B for details.

industries; their combined price movement shows a price increase of nearly 120 per cent within fifteen months. This is probably an extreme example of pressure of demand and of the differential effects of export price regulations on various exporters according to their price position in a base period; when a sizable part of exporting is done by traders, rather than manufacturers, the average unit price may well be higher than market quotations, sometimes substantially higher.

48. Of the items used in volume in the construction industry, exported cement prices remained remarkably low; this may have to do with greater output and stocks in the United States and even faster increases in world production. Plate and sheet glass prices, on the other hand, rose further, keeping much closer to the higher range of price movements.

49. Among textile yarns, those made of cotton, wool or synthetics displayed very divergent price movements, as might have been expected. Wool yarn reflected large price increase in the raw material but its price rise is much less steep. The index is somewhat erratic because all types of wool yarn are in a single classification; the resulting lack of homogeneity in types, grades and sizes causes irregularities which could have been avoided by individual weighting of sub-items. The more detailed breakdown available for cotton yarns, by degree of finish if not by size, affords a smoother index which parallels the export index of United States cotton except for its smaller amplitude.

50. Turning to consumer goods proper, the price behaviour of cotton, wool and synthetic fabrics shows considerable divergence, more or less in line with that of the yarns which went into their manufacture. The slightly higher peak of cotton fabrics compared with yarns should not be overrated, because of limited homogeneity among the types exported. In the case of synthetics, the price lead of the yarn over the fabric and the latter's smaller amplitude of price movement seem quite pronounced. The price curve of clothing is more depressed. This is a somewhat unbalanced group, containing mostly men's wear of cotton and women's dresses of synthetic materials; most other items had to be excluded for lack of homogeneity.

51. The movement in the paper group index was rather wide, similar to that of chemicals, and for similar reasons. Both groups are sensitive to changes in prosperity and this accounts for the deep trough in 1949/50. Increasing demand produced scarcity rather quickly, presumably also causing a greater proportion of traders' business in the total volume of exports, at higher average prices. The peak of the index for the small group of rubber manufacturers seems low compared with the spectacular rise of natural rubber prices; it will be recalled, however, that the proportion of natural rubber in manufactures was kept low by government regulation. At the same time the price of synthetic rubber rose very much less than that of natural rubber, whose price increase thus affected the price of export goods only to a limited extent.

52. Among consumers' durable goods, the gradual price rise of passenger cars may be explained by the rather marginal role of exports compared with the domestic market, possibly also by the pressure of European competition. The average export value of cars rose somewhat more steeply than that of trucks in the latter part of the period under observation; it is not impossible, however, that this may be due to a higher proportion of larger cars in the total, shown in one single classification in the United States statistics, while truck prices could be weighted in greater detail by size.

53. Prices of heating, cooking and plumbing fixtures displayed a very slow upward movement, owing in part to the inclusion of pottery sanitary ware which may be substituted for similar items made of steel. The price increase in refrigerators, including both the mechanical and the electrical variety, was more gradual, this index was included to illustrate a luxury variety among consumer durables. Household utensils and hollowware also remained at the low end of the price range, partly because of the inclusion of cheaper aluminium utensils which are largely interchangeable with similar items made of steel. The unit value indices of all these consumer goods were well below those of steel and aluminium from which they are chiefly made.

Relative Prices of United States Imports and Exports

54. In order to reduce the number of cross-indices required for a complete matrix showing the relationship between unit prices of United States imports and exports, certain commodities and periods of time which were judged significant were selected for this purpose. Tables 10 to 12 include four time periods which may be considered especially significant for the price movements under investigation: in 1948, the second quarter of 1950, the second quarter of 1951 and the second quarter of 1952. The first post-war period tabulated for this study is the year 1948, which antedates the major causative events of recent price swings. The year 1949 is the base year. The second quarters of the three years, 1950, 1951 and 1952, were selected because they were near the turning points in the majority of the series. The second quarter of 1950 was not in all cases the lowest point after the recession because a price recovery in primary commodities had then already begun, but it was the last quarter before the spectacular upturn produced by the conflict in Korea. The second quarter of 1951 was for many prices, though not for all, the upper turning point. The second quarter of 1952 - the last period shown in this study - represents a time when the prices of primary commodities had fallen drastically while the prices of many manufactured items had reached, or had only recently passed their high point following Korean hostilities.

55. The selection of imported commodities for tables 10 and 11, four foods and eight raw materials, is in accordance with their rank in value of United States imports in 1949 and 1951, excluding bananas and crude petroleum because of the role intra-company transactions play in their price movements. Prices of these twelve commodities were then related to a few important United States exports of foodstuffs (wheat and lard), fuels and raw materials (coal, petroleum products and cotton); next they were related to nine price index series for producers' goods and seven series for consumer goods. Tables 10 and 11 contain, in addition, a few comparisons of imports with similar or related export commodities.

Table 10. United States: Terms of Trade[a] of Imported Foods and Exported Foods, Fuels and Manufactured Goods

Exported commodity	1948	Second quarter 1950	1951	1952
Imported commodity: sugar				
Foods:				
Wheat and wheat flour	84.9	124.0	118.3	106.7
Lard	55.1	119.3	75.1	123.8
Fuels:				
Coal	95.3	104.1	100.7	105.6
Petroleum products	91.1	103.8	97.7	95.9
Producers' goods:				
Steel	98.5	103.9	86.8	93.9
Tracklaying tractors	90.7	102.2	90.9	95.1
Electrical machinery and apparatus	118.4	111.1	100.7	91.3
Motor trucks	...	111.3	102.2	100.9
Chemicals (combined index)	84.2	106.5	82.9	96.8
Soda ash and caustic soda	61.6	120.7	56.8	102.4
Cement	97.3	142.7	113.8	110.4
Agricultural machinery and equipment[b]	110.4	100.3	95.7	96.6
Construction machinery and equipment [b]	110.6	100.6	94.8	94.2
Consumer goods:				
Cotton fabrics	73.5	106.1	76.2	100.2
Synthetic fabrics	70.3	108.4	88.7	116.9
Passenger cars	110.8	100.6	96.3	90.9
Paper	84.1	109.2	79.6	90.4
Household utensils and hollowware	96.5	100.1	97.9	103.2
Heating, cooking and plumbing equipment	79.6	108.9	103.4	89.4
Refrigerators and washing machines	86.2	106.7	102.1	96.4
Imported commodity: coffee				
Foods:				
Wheat and wheat flour	80.2	193.5	213.8	184.9
Lard	52.0	186.2	135.8	214.6

Table 10 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Fuels:				
Coal	90.0	162.5	181.9	183.1
Petroleum products	86.1	162.0	176.4	166.1
Producers' goods:				
Steel	93.0	162.2	156.8	162.7
Tracklaying tractors	85.7	159.5	164.2	164.8
Electrical machinery and apparatus	111.9	173.4	181.9	158.3
Motor trucks	...	173.7	184.6	174.9
Chemicals (combined index)	79.5	166.2	149.7	167.7
Soda ash and caustic soda	58.2	188.4	102.6	177.4
Cement	91.9	222.7	205.6	191.3
Agricultural machinery and equipment b/	104.3	156.5	172.9	167.4
Construction machinery and equipment b/	104.5	157.0	171.3	163.2
Consumer goods:				
Cotton fabrics	69.4	165.6	137.6	173.6
Synthetic fabrics	66.4	169.1	160.2	202.6
Passenger cars	104.6	157.0	174.0	157.5
Paper	79.4	170.4	143.9	156.7
Household utensils and hollowware	91.2	156.2	176.9	178.9
Heating, cooking and plumbing equipment	75.2	170.0	186.8	155.0
Refrigerators and washing machines	81.4	166.6	184.4	167.1
Imported commodity: cocoa				
Foods:				
Wheat and wheat flour	152.3	120.7	197.0	168.2
Lard	98.8	135.7	125.1	195.2
Fuels:				
Coal	171.0	118.4	167.7	166.5
Petroleum products	163.5	118.0	162.6	151.1

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Table 10 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Producers' goods:				
Steel	176.7	118.2	144.6	148.0
Tracklaying tractors	162.8	116.2	151.4	149.9
Electrical machinery and apparatus	212.5	126.3	167.7	144.0
Motor trucks	...	126.6	170.1	159.1
Chemicals (combined index)	151.0	121.1	138.0	152.6
Soda ash and caustic soda	110.5	137.3	94.6	161.4
Cement	174.6	162.3	189.5	174.0
Agricultural machinery and equipment b/	198.1	114.1	159.3	152.3
Construction machinery and equipment b/	198.5	114.4	157.9	148.5
Consumer goods:				
Cotton fabrics	131.9	120.6	126.9	157.9
Synthetic fabrics	126.2	123.2	147.6	184.3
Passenger cars	198.8	114.4	160.4	143.3
Paper	150.9	124.1	132.6	142.5
Household utensils and hollowware	173.2	113.8	163.1	162.7
Heating, cooking and plumbing equipment	142.8	123.9	172.2	141.0
Refrigerators and washing machines	154.6	121.4	170.0	152.0
Imported commodity: canned beef				
Foods:				
Wheat and wheat flour	85.6	120.9	109.9	103.6
Lard	55.5	116.3	69.8	120.3
Fuels:				
Coal	96.1	101.5	93.5	102.6
Petroleum products	91.9	101.2	90.7	93.1

Table 10 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Producers' goods:				
Steel	99.3	101.3	80.6	91.2
Tracklaying tractors	91.5	99.7	84.4	92.4
Electrical machinery and apparatus	119.4	108.3	93.5	88.7
Motor trucks	...	108.6	94.9	98.0
Chemicals (combined index)	84.8	103.9	77.0	94.0
Soda ash and caustic soda	62.1	117.8	52.8	99.4
Cement	98.1	139.2	105.7	107.2
Agricultural machinery and equipment b/	111.3	97.8	88.9	93.9
Construction machinery and equipment b/	111.6	98.1	88.1	91.5
Consumer goods:				
Cotton fabrics	74.1	103.4	70.8	97.3
Synthetic fabrics	70.9	105.7	82.4	113.6
Passenger cars	111.7	98.1	89.4	88.3
Paper	84.8	106.5	74.0	87.8
Household utensils and hollowware	97.3	97.6	91.0	100.3
Heating, cooking and plumbing equipment	80.2	106.2	96.0	86.9
Refrigerators and washing machines	86.9	104.1	94.8	93.7
Imported commodity: olive oil				
Lard	61.7	61.1	62.7	91.6

Source: Tables 1 to 9.

a/ Import price index divided by export price index.

b/ Derived from United States wholesale price index.

Table 11. United States: Terms of Trade[a/] of Imported Raw Materials and Exported Foods and Manufactured Goods

Exported commodity	1948	Second quarter 1950	1951	1952
Imported commodity: rubber				
Foods:				
Wheat and wheat flour	100.5	136.5	370.2	228.2
Lard	65.2	131.3	235.1	264.9
Fuels:				
Coal	118.9	114.6	315.0	226.0
Petroleum products	118.5	114.2	305.5	205.0
Cotton	106.5	111.9	223.5	195.7
Producers' goods:				
Steel	116.6	114.4	271.6	200.8
Tracklaying tractors	107.4	112.5	284.4	203.4
Electrical machinery and apparatus	140.2	122.3	315.0	195.4
Motor trucks	...	122.5	319.6	215.9
Chemicals (combined index)	99.7	117.2	259.3	207.0
Soda ash and caustic soda	72.9	132.9	177.7	218.9
Cement	115.2	157.0	356.0	236.1
Agricultural machinery and equipment b/	130.7	110.4	299.4	206.7
Construction machinery and equipment b/	131.0	110.7	296.6	201.5
Consumers' goods:				
Cotton fabrics	87.0	116.8	238.4	214.3
Synthetic fabrics	83.3	119.3	277.4	250.1
Passenger cars	131.2	110.7	301.3	194.4
Paper	99.6	120.2	249.2	193.4
Household utensils and hollowware	114.3	110.2	306.4	220.8
Heating, cooking and plumbing equipment	94.2	119.9	323.5	191.4
Refrigerators and washing machines	102.0	117.5	319.3	206.3
Imported commodity: wool				
Foods:				
Wheat and wheat flour	83.4	120.9	283.6	113.8
Lard	47.0	116.4	180.1	132.0

Table 11 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Fuels:				
Coal	85.7	101.5	241.3	112.6
Petroleum products	85.5	101.2	234.1	102.2
Cotton	93.8	99.2	171.2	97.6
Producers' goods:				
Steel	84.1	101.3	208.1	100.1
Tracklaying tractors	77.4	99.7	217.9	101.4
Electrical machinery and apparatus	101.1	108.3	241.3	97.4
Motor trucks	...	108.6	244.9	107.6
Chemicals (combined index)	71.8	103.9	198.6	103.2
Soda ash and caustic soda	52.6	117.8	136.2	109.1
Cement	83.1	139.2	272.8	117.7
Agricultural machinery and equipment b/	94.2	97.8	229.3	103.0
Construction machinery and equipment b/	94.5	98.1	227.3	100.4
Consumer goods:				
Cotton fabrics	62.8	103.4	182.6	106.8
Synthetic fabrics	60.0	105.7	212.5	124.6
Passenger cars	94.6	98.1	230.8	96.9
Paper	71.8	106.5	190.9	96.4
Household utensils and hollowware	82.4	97.6	234.7	110.1
Heating, cooking and plumbing equipment	67.9	106.2	247.8	95.4
Refrigerators and washing machines	73.6	104.1	244.6	102.8
Imported commodity: tin				
Foods:				
Wheat and wheat flour	65.6	95.1	147.6	117.0
Lard	42.6	91.5	93.7	135.8
Fuels:				
Coal	77.6	79.9	125.6	115.9
Petroleum products	77.4	79.6	121.8	105.1
Cotton	75.8	78.0	89.1	100.3

Table 11 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Producers' goods:				
Steel	76.1	79.7	108.3	102.9
Tracklaying tractors	70.1	78.4	113.4	104.3
Electrical machinery and apparatus	91.5	85.2	125.6	100.2
Motor trucks	...	85.4	127.4	110.7
Chemicals (combined index)	65.0	81.7	103.3	106.1
Soda ash and caustic soda	47.6	92.6	70.8	112.3
Cement	75.2	109.4	141.9	121.0
Agricultural machinery and equipment b/	85.3	76.9	119.3	106.0
Construction machinery and equipment b/	85.5	77.2	118.2	103.3
Consumer goods:				
Cotton fabrics	56.8	81.4	95.0	109.9
Synthetic fabrics	54.4	83.1	110.6	128.2
Passenger cars	85.6	77.2	120.1	99.7
Paper	65.0	83.7	99.3	99.2
Household utensils and hollowware	74.6	76.8	122.1	113.2
Heating, cooking and plumbing equipment	61.5	83.6	128.9	98.1
Refrigerators and washing machines	66.6	81.9	127.3	105.8
Imported commodity: copper				
Foods:				
Wheat and wheat flour	92.4	115.1	142.7	141.7
Lard	60.0	110.7	90.6	164.5
Fuels:				
Coal	109.4	96.6	121.4	140.4
Petroleum products	109.0	96.3	117.7	127.4
Cotton	106.8	94.4	86.1	121.6

Table 11 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Producers' goods:				
Steel	107.3	96.4	104.7	124.7
Tracklaying tractors	98.8	94.9	109.6	126.4
Electrical machinery and apparatus	129.0	103.1	121.4	121.4
Motor trucks	...	103.3	123.2	134.1
Chemicals (combined index)	91.6	98.8	99.9	128.6
Soda ash and caustic soda	67.0	112.0	68.5	136.0
Cement	106.0	132.4	137.2	146.6
Agricultural machinery and equipment b/	120.2	93.1	115.4	128.4
Construction machinery and equipment b/	120.5	93.3	114.3	125.2
Consumer goods:				
Cotton fabrics	80.1	98.4	91.9	133.1
Synthetic fabrics	76.6	100.5	106.9	155.3
Passenger cars	120.6	93.4	116.1	120.8
Paper	91.6	101.3	96.0	120.1
Household utensils and hollowware	105.1	92.9	118.1	137.2
Heating, cooking and plumbing equipment	86.6	101.1	124.6	118.9
Refrigerators and washing machines	93.8	99.1	123.1	128.2
Imported commodity: lead				
Foods:				
Wheat and wheat flour	90.9	84.6	118.2	114.6
Lard	59.0	81.4	75.1	133.1
Fuels:				
Coal	107.5	71.0	100.6	113.5
Petroleum products	107.2	70.8	97.6	100.2
Cotton	105.0	69.4	71.4	93.1

Table 11 (continued)

Exported commodity	1948	Second quarter 1950	1951	112.6
Producers' goods:				
Steel	105.4	70.9	86.7	100.9
Tracklaying tractors	97.1	69.7	90.8	102.2
Electrical machinery and apparatus	126.8	75.8	100.6	98.1
Motor trucks	...	75.9	102.1	108.4
Chemicals (combined index)	90.1	72.7	82.8	104.0
Soda ash and caustic soda	65.9	82.4	56.7	110.0
Cement	104.2	97.3	113.7	118.6
Agricultural machinery and equipment b/	118.2	68.4	95.6	103.8
Construction machinery and equipment b/	118.5	68.6	94.7	101.2
Consumer goods:				
Cotton fabrics	78.7	72.4	76.1	107.6
Synthetic fabrics	75.3	73.9	88.6	125.6
Passenger cars	118.6	68.6	96.2	97.6
Paper	90.0	74.5	79.6	97.2
Household utensils and hollowware	103.4	68.3	97.8	110.9
Heating, cooking and plumbing equipment	85.2	74.3	103.3	96.1
Refrigerators and washing machines	92.2	72.8	102.0	103.6
Imported commodity: burlap				
Foods:				
Wheat and wheat flour	97.4	112.9	161.1	117.4
Lard	63.2	108.6	102.3	130.3
Fuels:				
Coal	115.2	94.8	137.1	116.2
Petroleum products	114.9	94.5	133.0	105.5
Cotton	112.6	92.6	97.3	100.7

Table 11 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Producers' goods:				
Steel	113.0	94.6	118.2	103.3
Tracklaying tractors	104.1	93.0	123.8	104.6
Electrical machinery and apparatus	135.9	101.1	137.1	100.5
Motor trucks	...	101.3	139.1	111.1
Chemicals (combined index)	96.6	97.0	112.8	106.5
Soda ash and caustic soda	70.6	109.9	77.3	112.6
Cement	111.7	129.9	154.9	121.4
Agricultural machinery and equipment b/	126.7	91.3	130.3	106.3
Construction machinery and equipment b/	127.0	91.6	129.1	103.6
Consumer goods:				
Cotton fabrics	84.3	96.5	103.7	110.2
Synthetic fabrics	80.7	98.6	120.7	128.6
Passenger cars	127.1	91.6	131.1	100.0
Paper	96.5	99.4	108.4	99.5
Household utensils and hollowware	110.8	91.1	133.3	113.6
Refrigerators and washing machines	98.9	97.2	139.0	106.1
Heating, cooking and plumbing equipment	91.3	99.1	140.8	98.4
Imported commodity: copra				
Foods:				
Wheat and wheat flour	132.0	132.9	164.3	65.5
Lard	85.6	127.9	104.3	76.1
Fuels:				
Coal	156.1	111.6	139.8	64.9
Petroleum products	155.6	111.3	135.6	58.9
Cotton	152.5	109.0	99.2	56.2

Table 11 (continued)

Imported commodity	1948	Second quarter 1950	1951	1952
Producers' goods:				
Steel	153.1	111.4	120.5	57.6
Tracklaying tractors	141.0	109.6	126.2	58.4
Electrical machinery and apparatus	184.1	119.1	139.8	56.1
Motor trucks	...	119.3	141.8	62.0
Chemicals (combined index)	130.8	114.2	115.0	59.4
Soda ash and caustic soda	95.7	129.4	78.9	62.9
Cement	151.3	153.0	158.0	67.8
Agricultural machinery and equipment b/	171.6	107.5	132.8	59.3
Construction machinery and equipment b/	172.0	107.8	131.6	57.8
Consumer goods:				
Cotton fabrics	114.3	113.7	105.8	61.5
Synthetic fabrics	109.4	116.2	123.1	71.8
Passenger cars	172.2	107.8	133.7	55.8
Paper	130.7	117.0	110.6	55.5
Household utensils and hollowware	150.1	107.3	136.0	63.4
Heating, cooking and plumbing equipment	123.7	116.8	143.5	54.9
Refrigerators and washing machines	134.0	114.4	141.7	59.2
Imported commodity: hides				
Foods:				
Wheat and wheat flour	103.5	121.1	160.9	82.6
Lard	67.1	116.5	102.2	95.1
Fuels:				
Coal	116.2	101.6	136.9	81.8
Petroleum products	111.1	101.3	132.8	74.2
Cotton	119.6	99.3	97.1	70.9

Table 11 (continued)

Imported commodity	1948	Second quarter 1950	1951	1952
Producers' goods:				
Steel	122.2	101.4	118.0	72.6
Tracklaying tractors	110.6	99.8	123.6	73.6
Electrical machinery and apparatus	144.4	108.4	136.9	70.7
Motor trucks	...	108.7	138.9	78.2
Chemicals (combined index)	102.6	104.0	112.7	75.0
Soda ash and caustic soda	75.0	117.9	77.2	79.3
Cement	118.6	139.3	154.7	85.5
Agricultural machinery and equipment b/	134.6	97.9	130.1	74.8
Construction machinery and equipment b/	134.9	98.2	128.9	72.9
Consumer goods:				
Cotton fabrics	89.6	103.6	103.6	77.6
Synthetic fabrics	85.7	105.8	120.5	90.5
Passenger cars	135.0	98.2	130.9	70.4
Paper	102.5	106.6	108.3	70.0
Household utensils and hollowware	117.7	97.7	133.1	79.9
Heating, cooking and plumbing equipment	97.0	106.3	140.6	69.3
Refrigerators, and washing machines	105.0	104.2	138.8	74.7
Imported commodity: tobacco				
Tobacco	107.5	126.1	78.4	79.4
Cigarettes	108.6	85.0	83.6	73.8
Imported commodity: cotton				
		Jan/Sept'50	Jan/Sept'51	
Cotton	98.2	110.4	114.0	...

Source: Tables 1 to 9.

a/ Import price index divided by export price index.
b/ Derived from United States wholesale price index.
c/ January to September.

Table 12. United States: Terms of Trade of Imported Raw Materials and Related Exported Manufactures [a/]

Exported commodity	1948	Second quarter 1950	1951	1952
Imported commodity: cotton				
Cotton yarn	97.2	119.0	118.4	...
Cotton fabrics	80.2	116.3	113.5	...
Clothing [b/]	87.7	116.7	143.2	...
Imported commodity: wool				
Wool yarn	99.0	88.7	248.3	81.8
Wool fabrics	89.9	106.5	179.4	117.8
Imported commodity: iron ore				
Steel	90.8	114.3	102.3	149.7
Tracklaying tractors	89.5	112.4	107.1	151.7
Motor trucks	...	122.4	120.3	161.0
Passenger cars	102.2	110.6	113.4	144.9
Imported commodity: bauxite				
Aluminium mill products	111.2	122.4	92.3	104.6
Imported commodity: copper				
Copper mill products	100.3	104.6	103.2	90.4
Electrical machinery and apparatus	129.0	103.1	121.4	121.4
Copper sulphate	94.2	101.7	88.9	100.3
Imported commodity: zinc				
Zinc oxide and lithopone	106.5	86.7	102.0	137.3
Imported commodity: rubber				
Rubber products	110.4	113.7	268.0	229.5
Imported commodity: crude petroleum				
Petroleum products	94.0	99.1	90.0	85.7
Imported commodity: sodium nitrate				
Fertilizers	72.7	96.5	96.2	91.6

Source: Tables 1 to 9.

a/ Import price index divided by export price index.
b/ This item includes some synthetic clothing.

56. In table 12 the price indices of imported raw materials were related to exported manufactures made from these raw materials or containing considerable amounts of them. All indices in tables 10 to 12 are arranged to illustrate the quantum of selected United States exports, mostly of manufactured goods, which could on the average[6/] be exchanged for a unit of the stated primary commodity in various time periods, compared with 1949 as a base.

57. It was not possible to discuss in detail the manifold relationships which tables 10 to 12 contain. The material might be analysed in several ways, of which four may be noted:

(a) Changes in the terms of trade displayed a fairly characteristic pattern between 1950 and 1952 when they reflected the upward movement of primary commodity prices. The movement of United States export prices, however, at times made influence felt in the same direction and at other times in the opposite direction. Between 1950 and 1951 when most commodity prices rose much faster than those of manufactures, the terms of trade moved in favour of the former, as expressed in rising indices. During the rest of 1951 the scissors began to close again, for many commodity prices fell while those of manufactures rose under the impact of rising costs. By the second quarter of 1952, however, the prices of some manufactures, notably of some textile goods, receded, so that the entries in the last column in tables 10 to 12 are higher than would otherwise have been the case. At the beginning of the period under observation, a reverse situation can be seen; prices of primary commodities and also of many manufactured goods had declined between 1948 and 1950 and there is a great deal of variation in the index figures, depending on which price movement was more pronounced, that of imports according to tables 1 to 5, or of exports, as shown in tables 6 to 9.

(b) Tables 10 and 11 show all export equivalents for each single primary commodity, arranged in four groups: exported food, fuels and raw materials, producers' goods and consumers' goods. It will be noted that the amplitude of change varies a great deal from time period to time period, depending on the commodities compared. On the other hand, the price ratio of various export goods to the same import commodity illustrates the great

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6/ A number of reservations regarding the restricted meaning of this concept of the average were made in the introduction to this study and in appendix A.

differences which exist within one time period in the "purchasing power" of a primary product over other commodities. Taking cocoa in the second quarter of 1951 as an example, the terms of trade against various commodities vary from 94.6 to 197.0, though it will be noted that the gap between minimum and maximum varies between time periods and from commodity to commodity.

(c) The dispersion of prices of primary commodities does not require comment, but tables 10 and 11 permit the observer to visaulize it in terms of export commodities which are important for under-developed countries. To give an example for the second quarter of 1951, about 25 per cent more canned beef was then required to buy the same quantum of steel than in 1949 (index 80.6) while 64 per cent less rubber was required for the same purpose (index 271.6). A large number of similar comparisons could be drawn from these tables.

(d) The "vertical" comparison attempted in table 12 confirms the expectation that the terms of trade move in favour of the raw material in times of rising prices because its price increases more than the goods made from it. While the relationship in the period covered by this study has largely been in favour of raw materials, in the inverse case, prices of raw materials fall faster than those of manufactures; in fact, in the period after the cut-off date of the present study, price increases in manufactures have already in some instances begun to overtake earlier increases in primary products, which are being whittled down further by the continued price fall of some commodities.

Chapter 3

UNITED KINGDOM IMPORTS AND EXPORTS

58. Following the pattern adopted for chapter 2, the present chapter consists of three parts. The first part deals with United Kingdom import unit values, indices of which are presented in tables 13 to 16. The second analyses export unit values, chiefly of manufactured products, as shown in tables 17 to 19. In the third part the ratios at which a number of primary products imported into the United Kingdom could be exchanged against selected manufactures during certain significant time periods are presented in tables 20 to 22.

59. The limitations of the material which ought to be taken into consideration in drawing conclusions have been discussed in the preceding chapter. However, the difference in price behaviour between different primary commodities or manufactured products, or between food and raw materials, and between prices of a given commodity at different periods of time is clearly so pronounced that any discrepancies of statistical origin could not affect the outcome significantly.

60. The dispersion between price movements of primary products was very striking in the United Kingdom because the effects of the post-Korean boom were superimposed on those of the 1949 devaluation. The commodities whose strong position permitted a price rise, in terms of sterling, by all or a large part of the devaluation ratio were, for the most part, the same products which increased most in price under the pressure of increased demand in 1950/51. Quite naturally the wide spread in costs of one raw material as against another brought about a further price diversity among manufactured goods.

United Kingdom Imports

61. As in the case of United States imports, the general impression gained from noting the price behaviour of imports into the United Kingdom, as expressed in the form of unit value indices (tables 13 to 16), is one of great diversity. Except for the fact that no series remained altogether stable - a result which could be expected after devaluation - the differences between price movements were more striking than the elements of similarity. In approximate conformity

with world prices, many series reached a peak between the second and the fourth quarters of 1951, then declined from that point, some steeply, some slightly, a few turning upwards again in 1952. This pattern, however, which conformed to the behaviour of prices generally in international trade during the period after the outbreak of hostilities in Korea, did not apply to some important imports into the United Kingdom. Prices of foodstuffs especially, except those of cocoa and coffee, instead of following this pattern, made a slower, nearly uninterrupted, climb, widely differing in slope and ranging from only 113.3 for butter and cheese to 181.6 for barley.

62. Raw material prices similarly differed in steepness of advance, amplitude of fluctuation and incidence of turning points. Moreover, the difference in price behaviour of commodities customarily grouped together was noticeable in United Kingdom imports as it was in United States imports. Not only was this true of commodities in large composites like non-ferrous metals but also in smaller groups, such as hides and skins, or oil-seeds and oils.

63. A more detailed comparison between the price movement of United States imports and prices of imports into the United Kingdom is made in chapter 4. Some significant determinants of United Kingdom prices which differ from those influencing United States import prices should, however, be mentioned at this point. The composition of United Kingdom imports by country of origin is more heavily weighted in the direction of sterling commodities; this is a natural consequence of traditional patterns of trade within the sterling area, enhanced by the necessity of keeping to a minimum expenditures in hard currency. The impact of devaluation on the import unit value of any commodity depends on the proportion imported from other devaluing countries as against the share from non-devaluing countries. Clearly, a given price of a dollar commodity was, immediately after devaluation, reflected in a higher sterling value, while higher world market prices for goods in terms of sterling made themselves felt more gradually in revised contract terms, and to a different extent depending on the strength of demand for each commodity.

64. Devaluation was, however, not the only factor influencing the composition of prices which go into the average unit value. Since the Second World War, the United Kingdom has obtained a large part of its imports by a system of bulk

Table 13. United Kingdom: Unit Value Indices of Imported Foodstuffs and Tobacco

(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Meat, frozen:														
Beef a/	35.0	70.0	97.5	105.2	126.2	138.6	108.3	86.2	122.3	132.5	129.8	109.4	134.6	140.0
Mutton and lamb	53.7	86.8	99.0	104.6	106.2	110.6	111.4	109.5	107.0	114.7	123.3	118.4	122.7	138.0
Butter and cheese	38.4	92.7	100.2	99.3	96.6	98.4	100.9	106.5	101.9	107.2	114.2	117.3	113.0	113.3
Grain and flour:														
Wheat b/	29.7	88.4	97.0	109.8	110.7	111.9	113.3	108.7	110.1	128.3	130.9	126.6	134.3	128.3
Barley	32.8	149.1	103.8	96.0	96.2	103.1	108.8	103.1	133.5	151.6	160.9	158.6	176.4	181.6
Maize	21.6	99.2	100.8	79.6	80.1	81.9	81.7	88.8	101.1	116.0	130.3	126.4	137.2	139.9
Rice	27.8	90.0	103.3	92.4	92.6	104.2	103.1	109.6	117.2	118.7	131.2	140.7	133.6	147.6
Cocoa, raw	17.7	143.5	100.7	80.6	130.3	151.4	154.6	200.1	194.0	209.6	209.6	179.9	176.1	195.9
Coffee c/	54.5	89.8	94.5	111.5	116.1	245.8	213.8	249.7	266.6	253.9	248.3	248.7	251.1	245.6
Tea	41.8	96.0	99.2	101.2	107.1	102.4	115.7	115.3	113.9	120.1	120.6	117.4	117.0	115.8
Bananas	36.2	100.9	99.9	100.4	101.3	104.7	110.6	106.4	108.1	111.6	111.6	110.2	112.5	119.5
Sugar, unrefined	26.5	103.9	96.3	110.0	119.8	122.6	126.1	135.4	126.8	155.8	158.2	161.8	167.8	153.4
Tobacco, unmanufactured d/	38.1	87.2	96.2	106.1	102.6	128.3	126.4	123.7	117.6	137.2	129.2	131.3	138.8	129.2

Source: Official trade statistics of the United Kingdom and information from the United Kingdom Board of Trade.

a/ Forequarters and hindquarters, boned and boneless.
b/ Including meal and flour.
c/ Not roasted or ground.
d/ Stripped and unstripped.

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Table 14. United Kingdom: Unit Value Indices of Imported Raw Materials

(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Hides and skins:														
Cattle hides a/	27.2	94.2	100.6	97.6	108.4	107.0	103.6	109.9	144.7	178.9	178.2	136.2	144.2	107.9
Sheep and lamb skins b/	22.2	107.5	101.9	94.0	135.8	127.2	127.9	148.1	165.2	208.9	215.0	152.8	142.2	103.1
Goat skins	...	95.6	100.4	98.9	130.3	136.8	131.1	141.5	154.6	189.5	185.3	145.1	152.9	133.0
Combined index	...	96.0	100.7	97.4	113.9	114.0	110.3	119.4	148.7	184.2	183.8	139.5	145.2	111.2
Rubber c/	58.2	112.7	97.7	106.2	125.8	143.2	215.4	304.9	416.6	438.7	361.9	341.1	337.8	270.8
Oil-seeds:														
Castor	26.1	116.7	100.0	94.4	128.0	124.3	127.9	151.2	180.4	258.5	290.9	262.4	295.8	247.8
Cotton	20.7	112.1	99.8	98.5	89.5	98.1	97.2	92.0	90.3	120.6	149.5	161.6	180.8	200.3
Flax or linseed	22.4	105.5	101.8	91.5	104.8	91.8	88.1	93.2	94.5	94.6	144.0	142.7	143.0	149.4
Nuts and kernels for expressing oil:														
Copra	20.0	86.8	100.5	99.4	97.8	101.0	101.1	105.1	105.8	134.0	172.8	137.8	133.1	129.8
Ground-nuts d/	22.6	91.2	98.8	103.1	110.4	111.0	111.0	109.2	125.1	143.0	145.3	151.4	188.4	187.9
Palm kernels	20.5	82.3	98.7	103.7	100.3	97.5	97.3	97.5	119.8	134.7	134.2	138.2	136.2	136.0
Waxes and oils:														
Carnauba and candelilla wax	32.9	105.2	98.9	103.3	149.3	142.0	121.5	149.4	178.6	196.2	297.1	224.6	189.1	179.3
Coconut oil e/	17.4	85.4	99.6	102.9	102.5	110.1	107.9	107.7	110.4	162.2	178.0	129.7	125.6	119.2
Linseed oil	20.0	151.2	106.4	96.0	96.1	110.1	113.5	111.0	110.4	121.0	149.6	162.6	161.6	162.4
Palm oil e/	17.6	86.4	99.1	102.3	94.0	93.2	93.1	94.9	107.2	126.0	125.3	134.2	153.4	134.3
Tung oil	39.0	130.5	99.4	101.6	144.3	141.7	125.4	129.4	190.3	176.9	185.9	190.0	175.3	165.7

Source: Official trade statistics of the United Kingdom and information from the United Kingdom Board of Trade.

a/ Wet.
b/ Excluding woolled skins, to eliminate price factor of by-product.
c/ Raw, including crepe and latex.
d/ Shelled.
e/ Unrefined.

Table 15. United Kingdom: Unit Value Indices of Imported Raw Materials

(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Cotton a/	20.8	109.1	97.6	108.5	121.6	125.0	128.4	154.8	202.0	239.3	216.4	175.0	199.2	190.9
Jute, raw	18.2	91.8	102.8	92.9	108.7	114.3	114.9	107.2	113.0	128.0	171.1	188.4	153.2	156.9
Manila hemp	n.a.	71.7	100.6	98.4	131.4	125.6	114.6	113.0	139.2	158.0	168.7	145.8	140.8	128.9
Wool, raw b/	30.4	84.6	99.2	102.3	129.7	149.9	170.9	254.0	311.9	398.4	307.5	170.5	176.1	149.7
Mahogany, hewn	40.3	105.1	100.9	99.8	98.3	103.7	100.0	108.1	116.8	142.8	160.3	180.5	181.8	159.8
Wood-pulp c/	31.3	120.9	105.1	65.8	83.9	96.4	105.2	126.0	154.1	215.2	265.2	276.6	282.1	233.2
Petroleum, crude	35.1	101.8	93.7	115.2	119.2	119.4	116.9	126.9	130.6	140.7	141.8	149.5	155.6	155.2
Asbestos d/	42.6	89.4	100.4	99.4	111.6	116.9	109.0	111.9	119.5	121.4	127.1	108.0	147.0	157.0
Mica e/	39.4	99.6	96.4	116.2	108.3	126.5	128.8	135.7	125.2	140.9	135.1	139.4	171.0	174.1
Mineral phosphates of lime	37.1	92.8	97.7	109.7	108.8	107.7	108.8	112.0	116.0	157.3	219.8	195.5	185.1	178.6
Sulphur	50.2	96.9	95.8	111.6	110.4	115.4	115 ?	121.4	156.6	192.7	191.2	207.7	186.0	171.7

Source: Official trade statistics of the United Kingdom and information from the United Kingdom Board of Trade.

a/ Raw, of staple 1 1/4 inch or over, under 1 1/4 inch and over 7/8 inch, 7/8 inch and under.
b/ Merino, crossbred and others, excluding skin wool.
c/ Chemical, dry, bleached and unbleached; chemical, wet; and mechanical.
d/ Raw and fibre.
e/ Slabs and splittings.

Table 15. United Kingdom Unit Value Indices of Imported Raw Materials

(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Iron ore	48.1	96.9	100.3	99.1	99.2	99.3	98.9	103.5	123.6	144.5	157.2	155.6	203.4	207.8
Manganese ore	71.2	93.5	100.7	98.0	106.5	122.2	123.9	125.2	127.7	166.6	180.0	204.9	193.3	212.9
Chromium ore	48.4	97.0	99.6	101.6	101.7	106.6	113.8	110.9	108.3	111.5	114.8	126.8	126.8	135.1
Bauxite	31.9	105.7	101.5	95.6	86.0	89.0	96.6	96.2	113.3	127.9	144.2	150.1	149.2	141.7
Copper a/	34.9	99.0	100.1	98.5	108.1	130.5	125.1	145.5	146.5	157.4	163.7	176.6	177.7	176.0
Lead b/	34.7	80.2	100.6	96.2	80.1	79.3	75.3	85.6	102.9	133.5	136.6	153.6	157.5	152.9
Tin:														
Metal c/	34.7	102.5	99.8	103.9	112.2	111.9	142.4	184.9	210.4	243.9	185.0	177.2	138.6	181.5
Ores and concentrates	34.1	95.7	93.4	124.9	107.2	118.8	117.3	162.3	205.9	161.8	136.3	147.6	140.9	135.9
Combined index	34.1	95.8	93.5	124.4	107.3	118.7	117.8	163.8	205.9	163.4	137.2	148.2	141.2	136.8
Zinc:														
Metal d/	15.9	74.3	103.7	84.8	89.6	94.4	127.8	147.1	160.8	171.6	188.3	221.5	213.1	199.4
Ores and concentrates	16.5	69.1	102.6	91.8	92.1	101.2	157.4	184.6	197.3	205.0	213.2	232.4	238.2	244.5
Combined index	16.0	73.1	103.4	86.5	85.6	96.0	134.8	156.0	168.5	179.6	194.2	218.9	219.1	210.1

Source: Official trade statistics of the United Kingdom and information from the United Kingdom Board of Trade.

a/ Unwrought, electrolytic and other.
b/ Pigs, ingots, slabs etc.
c/ Blocks, ingots, bars.
d/ Zinc or spelter, ingots, bars, slabs.

purchase, under long-term contracts, which affects the movement of prices in several ways. As a result, the rhythm of price changes, contrary to that of spot markets, has tended to be one of more discontinuous and larger steps, eliminating in the process, however, the most extreme peaks and troughs. Furthermore, agreements with several suppliers of the same commodity frequently carried diverging prices in the period under investigation. The effect of devaluation was evident here also because successive price concessions made by the United Kingdom tended to be greater for commodities imported from various suppliers in non-devaluing countries, who were unwilling to continue accepting lower price equivalents in terms of their own exchange.

65. Although these facts made desirable an analysis by origin, as between countries with devalued currencies and those with non-devalued currencies, and as between sterling area commodities and those of other origin, a sufficiently detailed breakdown could not in all instances be derived from the available data. A qualitative analysis by origin may be sufficient for the purposes of this study; it is given in the following discussion of individual commodities to explain specific features of their price movements. Such explanation is especially required if a lack of homogeneity in the price composition causes erratic movements which disturb an otherwise consistent trend.

66. The treatment of transportation charges included in average unit values[1/] is discussed in some detail in appendix A, especially the assumptions under which an adjustment would be required, and the obstacles opposing such an undertaking. At this point it may be sufficient to point to the tendency of both prices and freight rates to change in the same direction in periods of scarcity of both goods and shipping. Moreover, in most commodities covered by this study, transport costs can be assumed to be a relatively small

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1/ United Kingdom import statistics are based on prices adjusted to the landed c.i.f. point while statistics on imports into the United States approximate the value of the commodity f.o.b. the country of origin.

component of c.i.f. prices;[2/] wherever this is the case even a fairly large divergence of the freight cost to price ratio would still not affect the movement of the unit value index significantly. While the possibility exists that the over-all proportion of transport cost in price has been changed in some instances or in some time periods, it is believed that, on the whole, the pattern of price movements emerging from this study remains virtually unaffected.

67. Among individual commodities, frozen meat offers a good illustration of the points made earlier in this section regarding the price effects of changes in the relative importance of suppliers between various time periods. Argentina is traditionally the largest shipper of frozen beef to the United Kingdom, but fluctuations in its exportable surplus have at times resulted in a larger share for Australia and New Zealand at the expense of Argentina, whose contract prices were higher. In the second half of 1950 such a shift was responsible for a drop in the average unit value, and a year later there was a similar though less pronounced movement. Argentina reverted to first place in the first half of 1952 as a supplier of frozen carcass beef, with a corresponding rise in prices resulting from a renegotiation of the trade agreement. In the case of butter and cheese, New Zealand was the largest supplier in the period under review. The combined index was, however, occasionally affected by the share of other suppliers of cheese. Canada's contract price for cheese was much higher than that of New Zealand; the virtual elimination of the Canadian component in 1951 resulted in a reduction of average unit values which becomes evident in the first quarter of 1951.

2/ On an average of commodities and haulage distances, an estimate of 10 to 15 per cent seems acceptable; for example, the Economic Survey of Europe in 1951, assumes transportation cost as 12.5 per cent in overseas trade. If commodities are both cheap and bulky, and have to be hauled over long distances, the ratio of freight cost to price may be much higher than the average. The most extreme example is probably coal, which does, however, not appear as an import commodity in this study. The case of crude oil, which has a transportation cost of about 20 to 30 per cent is discussed at the appropriate place in this chapter.

68. Among the imports of cereals, wheat is chiefly supplied by Canada and the United States, usually in that order. A greater share coming from the United States in the first half of 1951 may have been responsible for a small decrease in unit value because of a slightly lower average price for United States wheat and a higher share of cheaper wheat exported around this period under the International Wheat Agreement. The price movements of the other cereals listed do not reflect any major shifts between suppliers, even though the relative shares of the Soviet Union, the United States and Argentina in the supply of maize did not remain stable.

69. Among tropical food crops, the index for cocoa reflects its rather wide price fluctuations, starting from a high post-war level in 1948. The London Cocoa Terminal Market reopened in January 1951, bulk buying having been discontinued a few months earlier. In this period most cocoa imports into the United Kingdom originated within the sterling area except for some Brazilian beans imported in the first quarter of 1950. The price index of coffee, of which the United Kingdom is not a major consumer, follows the world price movement rather closely, considering the effects of devaluation. The price of tea, however, a sterling commodity throughout, remained rather steady despite substantial fluctuations in the quantity of imports. The price of sugar was influenced by the composition of imports, whether from sterling countries or from others, chiefly Cuba and the Dominican Republic. Sugar from the dollar area had a higher contract price than that from the sterling area even though the price of the latter was periodically revised upward. A progressively smaller share of sterling sugar was thus reflected in higher prices. This shift was evident in the comparatively higher index figure for the fourth quarter of 1950.

70. Imports of tobacco are always higher in the first half of each year, and this fluctuation is even more pronounced in tobacco from the dollar area. This irregularity is a factor in the somewhat unsteady price curve, together with an increase in the United States share from a low of 37 per cent in 1949 to 47 per cent in 1950 and 60 per cent in 1951, which compares with a pre-war share of 75 per cent.

71. The group of hides and skins is affected by a lack of homogeneity similar to that observed in United States imports. Sheep and lamb skins - as well as goat skins - virtually all come from the sterling area, but their price movements appear to have little in common. Cattle hides originate chiefly in Latin America; average price of hides from Argentina tend to run higher than those from Brazil, and this explains the price increases in 1951 when Argentina's share was higher.

72. The unit value index of rubber has followed the world market price rather closely since 1951 - more so than the index in the United States, where governmental measures tended to keep the price lower.

73. The price movements of oil-seeds, oils and waxes display the kind of diversity already observed in chapter 2. Among the items not included in the United States sample, both ground-nuts and cotton-seeds are from the sterling area, the first originating in West Africa, while the latter is characterized by a progressively greater importance of the Anglo-Egyptian Sudan over East African sources. Existing records do not permit an analysis of linseed oil by origin, but, in general, its price movement was influenced by the change from plentiful supply up to mid-1951 to a shortage in source countries outside the United States, especially in Argentina, owing to reduced acreage and crop failure. Though copra is not a major import item in the United Kingdom, it is interesting to note that Indonesia emerged at the top of the list of suppliers in a time of shortage in the second half of 1951; its higher price is responsible for the higher movements of the index in the third quarter of 1951.

74. In the field of textile fibres, the movement of prices was strongly influenced by the price level of Egyptian cotton, which, with the Sudanese variety, was the chief component of long staple imports and the upper range of the 7/8" to 1 1/4" staple group. Within this latter group there was, however, a large component of cotton from the United States and from Brazil; the varying proportion of these three components affected the price materially, with Egypt always in the lead price-wise. Hence a period such as the first half of 1951, when virtually no cotton was imported from the United States, was bound to be marked by an upward movement of the price index. The price of jute, controlled in the United Kingdom until September 1952, followed the world price rather closely, though with somewhat reduced amplitude. Imports of wool originate preponderantly in the sterling area.

75. The increase in unit values of crude petroleum can be explained by three factors, although their individual effects cannot be fully isolated on the basis of existing information. Beginning with the fourth quarter of 1949, devaluation affected unit values in terms of sterling through the proportion of oil from the dollar area in total imports and through the dollar or gold component of costs of sterling oil. Beginning in 1950, unit values were pushed upwards by increases in royalties resulting from renegotiation of agreements with various governments in producing areas. Finally, increases of "brokers' awards" for freight[3/] in preceding periods were periodically taken into account for the purpose of price adjustments. The loss of supplies from Iran is not believed to have affected average unitsvalues under the prevailing universal pricing system.

76. Asbestos from Canada has lately been gaining in relative importance compared with imports from sterling sources, and this tendency may have affected the price pattern since the fourth quarter of 1951.

77. When considering the price movements of metal ores and concentrates, it is necessary to note that imports of these are tabulated in the official data by gross weight irrespective of metal content. This system could produce considerable fluctuation in unit value if the composition of imports from varying sources, possibly representing different concentrations, were to vary greatly. The pattern of imports has, however, remained rather stable over the period under review. In iron ore, Sweden leads by far, with Algeria as second supplier and Spain as third, with Canada taking third place only in the second half of 1951. The largest share of imports of manganese ore came from the Gold Coast, with India in second place. A smaller share of higher priced Indian ores caused the apparent price drop which may be observed in the first quarter of 1952. The source material does not disclose the origin of supplies of chromium ore and bauxite. Electrolytic copper from Northern Rhodesia has

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3/ Brokers' awards, much lower than spot freight rates, were used for price adjustment by the large companies even when they used their own bankers.

progressively gained over supplies from the United States and Canada, while other types of copper have been imported chiefly from Northern Rhodesia, with Chile's share declining. The lower sterling cost of copper from Northern Rhodesia, combined with its greater share, produced a damping effect on average unit values early in 1951.

78. The list of suppliers of metallic lead was headed by Australia, though supplies from other countries have gained in relative importance recently. Tin ores and concentrates came from Bolivia and Nigeria but in varying proportions, which may explain the somewhat erratic behaviour of the index. Imports of metallic tin are relatively less important. The London Metal Exchange has been trading in tin since it was reopened in November 1949, when a sharp price drop nearly reversed the increase which had followed devaluation. The averaging of unit values in the index has the effect of minimizing this sizable fluctuation since it was of relatively short duration. The sizable drop in prices of zinc which occurred late in 1949 resulted from slackening demand at the time, though a smaller share of Canada among the suppliers may have played a part.

United Kingdom Exports

79. The unit value indices presented in tables 17 to 19 were derived from statistics covering only those products originating in the United Kingdom, not including re-exports. In keeping with the listing adopted for United States exports, table 17 lists coal, coke and refined petroleum products.

80. The price indices of coal and coke are rather erratic, due to a lack of homogeneity. Computations are based on various types, grades and sizes, and some abrupt changes in unit value may be no more than a reflection of temporary shifts in composition; thus, the drop in the index number for the second quarter of 1951 resulted from exports of a greater proportion of cheaper breeze instead of hard coke. In general, the price picture that emerges reflects the price policy maintained by the National Coal Board for whatever quantities could be spared for export, but export prices in the base period were already at the high level which characterized the post-war years in Europe as a result of the strained supply position.

Table 17. United Kingdom: Unit Value Indices of Exported Raw Materials and Fuels

(1949 = 100)

Commodity	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Wool a/	33.1	92.2	98.2	103.3	127.6	137.6	157.4	231.6	302.1	381.2	305.6	183.8	170.3	149.0
Coal b/	27.8	102.5	100.2	99.6	100.6	99.3	102.3	97.4	99.9	101.4	94.6	105.6	127.1	127.5
Coke c/	32.9	102.5	101.9	95.6	97.5	80.8	91.1	93.3	80.4	65.4	74.3	72.9	102.1	126.9
Petroleum products:														
Kerosene	-	-	92.1	108.1	112.5	112.7	113.0	111.7	113.0	120.8	124.8	128.1	137.5	139.6
Motor spirit	41.4	118.6	101.8	95.9	117.6	114.4	126.8	127.3	128.9	129.3	135.6	148.8	145.2	147.2
Lubricating oil	43.3	105.4	101.6	91.9	108.0	105.6	107.0	109.9	114.8	105.4	111.0	130.4	148.1	145.7
Gas, diesel and fuel oil	43.6	129.2	100.7	101.2	116.3	116.7	104.6	113.2	113.6	116.0	119.4	127.7	126.6	128.3
Combined index	41.9	108.0	101.2	94.5	110.5	108.7	109.0	112.2	115.9	110.0	115.3	131.6	143.6	142.2

Source: Official trade statistics of the United Kingdom.

a/ British wool, excluding skin wool.
b/ Steam and gas.
c/ Gas, hard; breese.

Table 18. United Kingdom: Unit Value Indices of Exported Producers' Goods

(1949 = 100)

Product	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Iron and steel[a]	43.5	97.2	99.6	100.9	101.5	102.2	102.4	103.8	108.8	117.1	130.1	144.0	146.9	157.0
Aluminium sheets[b]	71.6	95.1	97.8	108.8	113.5	107.9	104.8	104.4	113.8	119.1	122.5	129.4	133.8	140.9
Copper mill products[c]	29.9	79.8	100.6	98.0	113.1	117.2	125.6	135.7	145.2	152.6	158.9	171.0	178.9	177.7
Tractors[d]	32.3[e]	111.4	97.1	110.1	114.9	114.0	113.6	114.4	123.3	128.9	136.1	140.4	148.1	149.7
Agricultural machinery[f]	48.6	99.5	99.2	102.4	113.4	117.6	115.7	128.6	134.7	138.1	138.5	159.0	166.1	162.8
Sewing machines[g]	39.5[e]	99.0	99.9	100.8	111.0	119.0	109.8	121.7	114.9	121.0	126.2	126.9	134.6	137.2
Looms and other weaving machinery	36.8	97.5	99.8	100.6	99.6	102.3	109.6	115.4	118.4	118.8	115.5	122.4	122.5	128.1
Machine tools	56.9[e]	99.5	100.7	98.3	100.4	107.4	104.2	101.8	106.6	116.1	113.8	115.6	125.1	132.5
Electrical machinery and equipment[a]	47.1[e]	95.1	100.6	97.8	100.3	101.6	101.4	103.9	105.9	106.7	115.6	116.0	118.4	120.9
Internal combustion engines[h]	39.2[e]	100.6	100.4	98.9	97.7	96.7	98.0	97.8	102.2	100.4	107.8	113.7	...	...
Commercial vehicles[i]	...	99.9	100.3	99.1	103.4	100.0	101.3	105.5	104.9	113.3	119.1	120.2	124.4	128.7
Cycles and motorcycles[j]	41.5[e]	99.9	99.3	102.3	103.7	103.4	102.1	101.7	105.3	108.9	113.2	116.0	116.2	121.5
Chemicals:														
Fertilizers[k]	35.8	93.7	99.9	99.9	99.4	104.2	105.0	103.6	99.5	105.7	113.3	115.0	116.9	121.7
Copper sulphate	38.5	99.6	99.9	100.4	107.7	109.2	118.0	129.8	136.8	174.5	188.6	226.3	244.5	247.5
Lead derivatives[l]	27.6[e]	92.1	97.2	120.6	117.3	114.5	120.6	122.2	123.6	131.5	140.6	141.8	149.6	147.7
Synthetic plastic materials[m]	...	...	100.9	97.2	91.9	93.0	96.8	101.5	105.8	118.1	116.7	122.4	127.3	128.0
Combined index[n]	39.1[e]	99.5[e]	98.5	101.2	101.5	102.7	105.7	104.7	107.9	119.9	126.8	132.3	137.2	141.0
Plate and sheet glass	47.5	92.5	98.1	104.7	114.0	114.0	114.7	114.8	111.6	119.2	134.4	126.9	143.7	146.9
Portland cement	37.9	100.8	99.3	102.3	103.0	102.0	102.8	109.1	110.9	120.4	133.8	141.6	139.1	141.8
Textile yarns:														
Cotton yarns[o]	28.4[e]	90.6	98.7	104.1	109.7	114.3	116.4	122.7	133.6	149.0	161.1	165.8	160.3	156.5
Woollen tops and yarns[p]	31.7[e]	90.8	100.0	100.0	109.8	121.9	134.2	159.6	209.4	257.6	273.3	208.4	175.7	145.4
Artificial silk yarns[q]	27.5	95.6	99.7	101.7	110.5	105.9	108.1	110.5	123.1	138.0	156.6	148.5	144.1	135.3

Source: Official trade statistics of the United Kingdom.

a/ See appendix B for items included.

b/ Pure and alloy.

c/ Including plates, sheets, wire, in strands, and tubes in varying composition.

d/ Tracklaying and agricultural, other than tracklaying.

e/ Index figure of limited comparability. In 1938 a less elaborate subdivision limited the extent of individual weighting of prices, and some components of later indices could not be included for lack of data.

f/ Total of groups, unweighted by individual items.

g/ Complete machines and heads.

h/ Diesel and other; data for 1952 not comparable because of change from weight to BHP.

i/ With engines not over 100 cc; including tricycles.

j/ Includes more items than listed in this table. See appendix B for items included.

k/ Ammonium nitrate and ammonium sulphate.

l/ White lead; acetate of lead, litharge, red lead; tetra ethyl lead.

m/ Vinyl resins and others; includes also moulding powders: cellulose acetate, phenol and cresol, urea formaldehyde and others.

n/ Tops; merino and other; yarns; carded and combed.

o/ Not of staple.

Table 19. United Kingdom: Unit Value Indices of Exported Consumer Goods

(1949 = 100)

Product	1938	1948	1949 quarters		1950 quarters				1951 quarters				1952 quarters	
			First to third	Fourth	First	Second	Third	Fourth	First	Second	Third	Fourth	First	Second
Cotton woven piece-goods a/	20.9 b/	96.2	101.4	95.3	97.4	100.7	99.7	106.7	115.0	125.1	136.5	138.3	128.4	123.8
Woven woollen tissues c/	36.7 b/	95.5	99.6	101.0	100.7	104.9	106.6	115.1	122.9	143.1	157.7	149.9	155.9	137.3
Artificial silk tissues d/	29.4	105.4	100.7	95.7	96.2	99.7	99.3	97.5	103.6	108.7	116.1	116.7	116.7	110.0
Men's cotton apparel e/	90.1 b/	95.1	96.9	110.4	102.2	105.5	108.5	105.1	110.7	129.3	139.2	141.6	134.8	132.6
Woman's stockings f/	18.6 b/	99.7	100.3	99.3	113.3	88.2	94.5	94.8	94.5	95.9	93.7	93.3	86.2	85.1
Paper and paper-board g/	49.3	111.6	102.3	93.8	91.9	88.7	93.1	103.1	117.5	138.5	159.7	166.3	177.0	172.3
Cigarettes	42.1	97.1	99.2	102.9	113.5	116.1	119.2	117.7	118.4	120.0	126.2	129.4	129.1	137.7
Penicillin salts	...	142.3	108.4	82.0	74.2	63.7	58.6	51.1	55.9	55.9	56.2	52.0	49.2	38.1
Insulin	125.7	100.0	100.0	100.0	100.0	100.0	105.7	114.3	111.4	102.9	125.7	114.3	114.3	120.0
Passenger cars h/	41.3	93.4	98.8	102.6	104.0	100.3	102.3	104.9	106.9	110.7	119.5	122.4	124.6	124.8
Household utensils, hollowware etc. i/	41.3	103.2	99.8	100.7	103.5	104.1	101.3	104.2	108.3	108.0	108.0	112.0	112.1	110.2
Heating, cooking and plumbing equipment j/	38.0 b/	99.2 b/	101.6	93.9	99.2	97.3	95.4	96.8	100.3	104.2	106.9	113.7	123.0	129.4
Rubber manufactures k/	20.4	93.0	100.1	99.4	99.2	104.1	102.3	123.4	138.6	175.6	178.0	172.5	171.8	170.8

Source: Official trade statistics of the United Kingdom.

a/ Unbleached grey; bleached white; printed, other.
b/ See footnote a/, table 18.
c/ All wool; worsted; mixed wool and worsted.
d/ Not dyed or printed; dyed, printed; wholly of staple fibre.
e/ Shirts, underwear, stockings and hose.
f/ Seamless nylon and other; full fashioned nylon and other; no nylon in 1938.
g/ Writing paper, large sheets; newsprint in rolls; other printing paper; cigarette paper; board, other than coated.
h/ New, including chassis for motor vehicles.
i/ Hollowware enamelled, galvanized and other; razor blades and blanks.
j/ See appendix B for items included.
k/ Outer covers for motorcycles and tricycles; giant covers; inner tubes for motorcycles and cycles; giant tubes.

81. The export of petroleum products during the past years has undergone a considerable expansion, with changing composition, as refining capacity increased; kerosene, for instance, now an export commodity, used to be imported in earlier years. The combined index should therefore be viewed with caution. Lack of homogeneity also affected commodities like lubricating oil, which includes a number of different types and grades. Differences in price movements of various petroleum products would make necessary a more complete analysis than could be given any single item in this study.

82. In the analysis of indices of manufactured products (tables 18 and 19), problems of homogeneity arise similar to those discussed in the section dealing with United States exports, but with one significant difference: in the United Kingdom, the statistical unit of quantity for machinery, is chiefly weight, not number, although sometimes both weight and number are stated. In the indices of United States exports, computation by number resulted in a degree of heterogeneity that made it impossible to obtain orderly series of unit values indicative of price movements rather than of random changes in size composition. Computation by weight does not, of course, take into account differences of type and other characteristics, but at least size is eliminated as a major obstacle to homogeneity, since size and weight appear to move fairly closely together within comparable classes of machinery. It was therefore possible to compute for the United Kingdom a larger number of significant machinery indices than for the United States, even though such indices may not deserve the same degree of confidence that can be accorded indices for single commodities or groupings of basically similar goods in comparable stages of manufacturing.

83. Table 18 comprises a group of producers' goods. Their price movement was characterized by a slow rise during 1950 and a sharply accelerating rise during 1951, under the combined impact on costs of devaluation and of the raw material boom after mid-1950. The unit value indices of iron and steel rose rather more steeply than expected, judging by published price indices of "iron and steel and manufactures thereof". The items selected were chiefly steel mill products, whose price rose much more steeply than that of manufactures. Export demand for such goods was more than could be satisfied from 1950 to 1952, and export prices rose therefore considerably above domestic quotations even though they lagged behind quotations from other European sources. Moreover,

imported iron ore increased quite sharply in price, as shown in table 16. The higher price rise of the iron and steel index was, therefore, in accordance with the tendency of semi-manufactures to reflect rising raw materials to a greater extent than manufactures of the kind found in table 19. Mill products of aluminium and copper followed the price trend of their respective raw materials, the first-named to a smaller extent on account of the sizable component of domestic resources required in manufacturing.

84. Most price indices of machinery and related items dipped slightly late in 1949 or early in 1950, rose slowly in 1950, and rose with increasing rapidity thereafter. The degree of price rise differed, however, considerably between various types of equipment. Agricultural machinery and tractors led in the price rise from 1949 onward, to high points of 166.1 and 149.7, respectively. This was far ahead of other machinery, but in cases where insufficient data did not permit corrective weighting, a price increase may conceal a rising share of larger equipment in exports. The index of the group of machine tools was clearly affected by lack of homogeneity. Sewing machines and weaving machinery were somewhat lower in the scale of price rises, followed by electrical machinery and equipment. The index series of internal combustion engines remained surprisingly low after a sizable initial drop in 1949/50. The commercial vehicles index rose somewhat higher than an index composed of cycles and motor-cycles.

85. In the case of chemicals, the movement was noticeably different from their equivalent in the United States, where this item rose above other producers' goods, to recede again in 1952. In the United Kingdom, the combined index of chemicals behaved similarly to the index of other producers' goods, maintaining a rather central position among them. However, a great deal of dispersion is found between individual items, as in the United States index, but in different commodities. The sodium compounds did not diverge much from the average in the United Kingdom series, but copper sulphate rose continuously, to 247.5 in the second quarter of 1952.

86. Among miscellaneous construction materials, cement lagged initially behind glass but not for as long as in the United States. The price movement of textile yarns paralleled that of the related raw materials; the top figure for cotton

yarns lagged somewhat behind that for cotton. The downward pressure on textile prices towards the close of the period was reflected in the indices.

87. In the groups of consumers' goods in table 19, cotton and wool fabrics reflected the movements of the corresponding raw materials, but with still lower peaks than those of the yarns, an illustration of a frequently observed price relationship. All textile piece-goods displayed the world-wide tendency of prices to decline in 1952, as did the items of apparel included in the table; the low trend of prices of women's stockings was chiefly caused by the downward tendency apparent in some types of nylons from a high level in the base period.

88. The steep price rise of paper and paper board was connected with the high prices of wood-pulp. The price movement of cigarettes displayed a time lag behind that of tobacco, as might be expected. A series for penicillin reflected the tendency towards price reduction which characterizes a new product, while that for insulin displayed a more conventional course. The price rise of passenger cars was rather moderate if it is assumed that it conceals no change in composition. The relatively small increase in the series for household utensils and hollowware illustrated the price lag of manufactures in relation to semi-manufactures. The group "heating, cooking and plumbing equipment" included some items of earthenware in addition to those made chiefly of steel. Finally, the index of some rubber manufactures reflected in discontinuous jumps, though to a lesser extent, the price rise of rubber.

Relative Prices of United Kingdom Imports and Exports

89. In order to analyse the cross-relationship between the unit prices of United Kingdom imports and exports, a procedure similar to that used for the United States in chapter 2 was adopted. The same four time periods were used, but they have a slightly different connotation, taking into account the devaluation of sterling, as 1948 was the last full year before that event. In the second quarter of 1950, six months after devaluation, its effects could be expected to be fully reflected in United Kingdom import unit values, except for long-term purchase contracts, while the cost-raising effects on exported manufactures had not yet had time to make themselves felt substantially. The second quarter of 1950 antedated the price boom in primary products, with recovery from the 1949 recession already begun. The second quarter of 1951 showed import prices at or close to their peak of the post-1950 period;

export prices had, in general, begun to rise under the combined cost-raising effects of devaluation and higher raw material prices, but the steepest part of the rise was yet to come. In the second quarter of 1952, this rise had actually taken place and in some items a downward reaction had begun, while import prices of most raw materials had fallen off substantially.

90. The selection of imported commodities included in tables 20 to 22 differs somewhat from the selection in the United States series, reflecting their relative importance in the structure of imports. Among foods, wheat, butter and cheese, tea, and sugar were selected, with cocoa added in order to present at least two commodities also included in the United States listing. In selecting twelve raw materials, wood-pulp and petroleum were eliminated in favour of other items somewhat lower on the list but of greater interest for under-developed countries. In tables 20 and 21, these thirteen primary products or groups are related to twelve producers' goods and eight consumer goods. As in the case of the United States, here, too, the indices contained in these tables illustrate the quantum of selected United Kingdom exports of manufactured goods against which a unit of the stated primary commodity could, on the average, be exchanged in selected periods, compared with 1949 as a base. In table 22, the import price indices of a number of raw materials are related to the export price indices of manufactures containing these raw materials. This relationship should be particularly revealing in the present instance of a country much more substantially engaged than is the United States in the export of manufactures made from imported raw materials.

91. Analysis of the table discloses characteristics of relative price movements similar to those previously established for the United States, but the contrasts are even more pronounced.

(a) The general pattern of price relations is dominated by extreme movements in price series of some raw materials. Combined with the effects of devaluation, they lead to higher peaks in the identical period of 1951 than in the United States series. Since the prices of United Kingdom exports had, by and large, not risen very much up to this period, the price scissors had opened very wide at that time. A year later, however, they were closing rapidly; in fact, the relatively small

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price rise of some commodities had already been overtaken by larger increases in prices of manufactured goods, as evidenced by terms of trade below 100.0 in the second quarter of 1952. Earlier in the series, a considerable dispersion of price relations was noted, due, in large part, to the difference in the impact of inflation on various commodities, depending on the extent to which their price rose in terms of sterling.

(b) The various export equivalents were tabulated in tables 20 and 21 against every primary commodity selected. Read horizontally, the purchasing power of each primary commodity over the same group of manufactured goods can be studied in four significant time periods. The degree of fluctuation between these time periods differs a great deal according to the commodity analysed. Within the same time period, and read vertically for the same primary product, equivalents in terms of various groups of manufactures differ even more. If the second quarter of 1951 is taken as an example, wool ranged from 154.6 to 392.9; cocoa - to use for illustration a commodity found also in the United States tables - the range was from 81.4 to 206.7.

(c) This diversity becomes even more pronounced if considered from the viewpoint of the amount of imports an exported commodity would procure. In the second quarter of 1951, about 11 per cent more butter and cheese was required in order to buy a unit of steel than in 1949 (index 91.5) but 73 per cent less of rubber (index 374.6). Many such comparisons could be made for commodities important to under-developed countries.

(d) In table 22, the movements of import unit values of some raw materials are related to the export unit values of manufactures chiefly made from them. In broad terms, it may be noted that the terms of trade, first moving in favour of the raw materials, experienced a sharp reversal in trend after the 1951 period. In the case of textile yarn and fabrics related to the fibres, the lower price trend in finished manufactures resulted in better terms of trade for the raw material.

Table 20. United Kingdom: Terms of Trade[a/] of Imported Foods and Exported Fuels, Producers' Goods and Consumer Goods

Exported commodity	1948	Second Quarter 1950	1951	1952
Imported commodity: wheat				
Fuels and producers' goods:				
Coal	86.2	112.7	126.5	100.6
Petroleum products	81.8	102.9	116.6	90.2
Iron and steel	94.8	109.5	109.6	81.7
Tractors	79.4	83.5	99.5	85.7
Commercial vehicles	88.5	111.9	113.2	99.7
Electrical machinery and equipment	93.0	110.1	120.2	106.1
Agricultural machinery	88.8	99.4	92.9	78.8
Sewing machines	89.3	94.0	106.0	93.5
Machine tools	98.8	108.2	110.5	96.8
Chemicals	88.8	109.0	107.0	91.0
Cotton yarns	88.8	97.9	86.7	82.0
Woollen tops and yarn	97.6	91.8	49.8	88.2
Consumer goods:				
Cotton woven piece-goods	91.9	111.1	102.6	103.6
Woollen woven tissues	92.6	106.7	89.6	93.4
Artificial silk tissues	83.9	112.2	118.0	116.6
Men's cotton apparel	93.0	106.1	99.2	96.8
Passenger cars and chassis	94.6	111.6	115.9	102.8
Paper	79.2	126.2	92.6	74.5
Household utensils and hollowware	85.6	107.5	118.8	116.4
Heating, cooking and plumbing equipment	89.1	115.0	123.1	99.2
Imported commodity: butter and cheese				
Fuels and producers' goods:				
Coal	90.4	99.1	105.7	88.9
Petroleum products	85.8	90.5	97.5	79.7
Iron and steel	99.4	96.3	91.5	72.2
Tractors	83.2	73.4	83.2	75.7
Commercial vehicles	92.7	98.4	94.6	88.0
Electrical machinery and equipment	97.5	96.8	100.5	93.7
Agricultural machinery	93.2	87.4	77.6	69.6
Sewing machines	93.6	82.7	88.6	82.6
Machine tools	103.6	95.2	92.3	85.5
Chemicals	93.2	95.8	89.4	80.4
Cotton yarns	93.1	86.1	72.4	72.4
Woollen tops and yarn	102.3	80.7	41.6	77.9

Table 20 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Consumer goods:				
Cotton woven piece-goods	96.4	97.7	85.7	91.5
Woollen woven tissues	97.1	93.8	74.9	82.5
Artificial silk tissues	88.0	98.7	98.6	103.0
Men's cotton apparel	97.5	93.3	82.9	85.4
Passenger cars and chassis	99.2	98.1	96.8	90.8
Paper	83.1	110.9	77.4	65.8
Household utensils and hollowware	89.8	94.5	99.2	102.8
Heating, plumbing and cooking equipment	93.4	101.1	102.9	87.6
Imported commodity: tea				
Fuels and producers' goods:				
Coal	93.6	103.1	118.4	90.8
Petroleum products	88.9	94.2	109.2	81.4
Iron and steel	103.0	100.2	102.6	73.8
Tractors	86.2	76.4	93.2	77.4
Commercial vehicles	96.0	102.4	106.0	90.0
Electrical machinery and equipment	101.0	100.8	112.6	95.8
Agricultural machinery	96.5	90.9	87.0	71.1
Sewing machines	97.0	86.0	99.2	84.4
Machine tools	107.3	99.0	103.4	87.4
Chemicals	96.5	99.7	100.2	82.1
Cotton yarns	96.4	89.6	81.1	74.0
Woollen tops and yarns	106.0	84.0	46.6	79.6
Consumer goods:				
Cotton woven piece-goods	99.8	101.7	96.0	93.5
Woollen woven tissues	100.5	97.6	83.9	84.3
Artificial silk tissues	91.1	102.7	110.5	105.3
Men's cotton apparel	101.0	97.1	92.9	87.3
Passenger cars and chassis	102.8	102.1	108.5	92.8
Paper	86.0	115.4	86.7	67.2
Household utensils and hollowware	93.0	98.4	111.2	105.1
Heating, cooking and plumbing equipment	96.8	105.2	115.2	89.5

Table 20 (continued)

Exported commodity	Second quarter			
	1948	1950	1951	1952
Imported commodity: sugar				
Fuels and producers' goods:				
Coal	101.4	123.5	153.6	120.3
Petroleum products	96.2	112.8	141.6	107.9
Iron and steel	111.5	120.0	133.0	97.7
Tractors	93.3	91.5	120.9	102.5
Commercial vehicles	104.0	122.6	137.5	119.2
Electrical machinery and equipment	109.3	120.7	146.0	126.9
Agricultural machinery	104.4	108.9	112.8	94.2
Sewing machines	104.9	103.0	128.8	111.8
Machine tools	116.1	118.6	134.2	115.8
Chemicals	104.4	119.4	129.9	108.8
Cotton yarns	104.3	109.3	105.3	98.0
Woollen tops and yarn	114.7	100.6	60.5	105.5
Consumers goods:				
Cotton woven piece-goods	108.0	121.7	124.5	123.9
Woollen woven tissues	108.8	116.9	108.9	111.7
Artificial silk tissues	98.6	123.0	143.3	139.5
Men's cotton apparel	109.3	116.2	120.5	115.7
Passenger cars and chassis	111.2	122.2	140.7	122.9
Paper	93.1	138.2	112.5	89.0
Household utensils and hollowware	100.7	117.8	144.3	139.2
Heating, cooking and plumbing equipment	104.7	126.0	149.5	118.5
Imported commodity: cocoa				
Fuels and producers' goods:				
Coal	140.0	152.5	206.7	153.6
Petroleum products	132.9	139.3	190.5	137.8
Iron and steel	154.0	148.1	179.0	124.8
Tractors	128.8	113.0	162.6	130.9
Commercial vehicles	143.5	151.4	185.0	152.2
Electrical machinery and equipment	150.9	149.0	196.4	162.0
Agricultural machinery	144.2	134.4	151.8	120.3
Sewing machines	145.0	127.2	173.2	142.8
Machine tools	160.3	146.4	180.5	147.8
Chemicals	144.2	147.4	174.8	138.9
Cotton yarns	144.1	132.4	141.6	125.2
Woollen tops and yarn	158.4	124.2	81.4	134.7

Table 20 (continued)

Exported commodity	Second quarter			
	1948	1950	1951	1952
Consumer goods:				
Cotton woven piece-goods	149.2	150.3	167.5	158.2
Woollen woven tissues	150.3	144.3	146.5	142.7
Artificial silk tissues	136.1	151.9	192.8	178.1
Men's cotton apparel	150.9	143.5	162.1	147.7
Passenger cars and chassis	153.6	150.9	189.3	157.0
Paper	128.6	170.7	151.3	113.7
Household utensils and hollowware	139.1	145.4	194.1	177.8
Heating, cooking and plumbing equipment	144.6	155.6	201.2	151.4

Source: Tables 13 to 19.

a/ Import price index divided by export price index.

Table 21. United Kingdom: Terms of Trade[a/] of Imported Raw Materials and Exported Fuels, Producers' Goods and Consumers Goods

Exported commodity	1948	Second quarter 1950	1951	1952
Imported commodity: cotton				
Fuels and producers' goods:				
Coal	106.4	125.9	226.1	149.7
Petroleum products	101.0	115.0	208.4	134.2
Iron and steel	117.1	122.3	195.8	121.6
Tractors	97.9	93.3	177.9	127.5
Commercial vehicles	109.1	125.0	202.4	148.3
Electrical machinery and equipment	114.7	123.0	214.9	157.9
Agricultural machinery	109.6	111.0	166.0	117.3
Sewing machines	110.2	105.0	189.5	139.1
Machine tools	121.9	120.9	197.5	144.1
Chemicals	109.6	121.7	191.2	135.4
Cotton yarns	109.5	109.4	154.9	122.0
Woollen tops and yarn	120.4	102.5	89.0	131.3
Consumer goods:				
Cotton woven piece-goods	113.4	124.1	183.3	154.2
Woollen woven tissues	114.2	119.2	160.2	139.0
Artificial silk tissues	103.5	125.4	210.9	173.5
Men's cotton apparel	114.7	118.5	177.3	144.0
Passenger cars and chassis	116.8	124.6	207.1	153.0
Paper	97.8	140.9	165.6	110.8
Household utensils and hollowware	105.7	120.1	212.3	173.2
Heating, cooking and plumbing equipment	110.0	128.5	220.0	147.5
Imported commodity: wool				
Fuels and producers' goods:				
Coal	82.6	151.0	392.9	117.4
Petroleum products	78.3	137.9	362.2	105.3
Iron and steel	90.9	146.7	340.2	95.4
Tractors	76.0	111.9	309.1	100.0
Commercial vehicles	84.7	149.9	351.6	116.3
Electrical machinery and equipment	89.1	147.5	373.4	123.8
Agricultural machinery	85.1	133.1	288.5	92.0
Sewing machines	85.6	126.0	329.2	109.1
Machine tools	94.6	145.0	343.1	113.0
Chemicals	85.0	146.0	332.3	106.2
Cotton yarns	85.0	131.4	269.2	95.6
Woollen tops and yarn	93.5	123.0	154.6	103.0

Table 21 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Consumer goods:				
Cotton woven piece-goods	88.0	148.8	318.5	120.9
Woollen woven tissues	88.7	142.9	278.4	109.0
Artificial silk tissues	80.4	150.4	366.5	136.1
Men's cotton apparel	89.1	142.1	308.1	112.9
Passenger cars and chassis	90.7	149.4	359.9	120.0
Paper	75.9	169.0	287.6	86.9
Household utensils and hollowware	82.1	144.0	368.9	135.8
Heating, cooking and plumbing equipment	85.3	154.1	382.3	115.7
Imported commodity: copper				
Fuels and producers' goods:				
Coal	96.6	121.4	155.2	138.0
Petroleum products	91.7	110.8	143.1	123.8
Iron and steel	106.2	117.9	134.4	112.1
Tractors	88.9	89.9	122.1	117.6
Commercial vehicles	99.0	120.5	138.9	136.8
Electrical machinery and equipment	104.1	118.6	147.5	145.6
Agricultural machinery	99.5	107.0	114.0	108.1
Sewing machines	100.0	101.3	130.1	128.3
Machine tools	110.6	116.5	135.6	132.8
Chemicals	99.5	117.3	131.3	124.8
Cotton yarns	99.4	105.4	106.4	112.5
Woollen tops and yarn	109.3	98.8	61.1	121.0
Consumer goods:				
Cotton woven piece-goods	102.9	119.7	125.8	142.2
Woollen woven tissues	103.7	114.9	110.0	128.2
Artificial silk tissues	93.9	120.9	144.8	160.0
Men's cotton apparel	104.1	114.2	121.7	132.7
Passenger cars and chassis	106.0	120.1	142.2	141.0
Paper	88.7	135.8	113.6	102.1
Household utensils and hollowware	95.9	115.8	145.7	159.7
Heating, cooking and plumbing equipment	99.8	123.8	151.0	136.0

Table 21 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Imported commodity: hides and skins				
Fuels and producers' goods:				
Coal	93.6	114.8	181.6	87.2
Petroleum products	88.9	104.9	167.4	78.2
Iron and steel	103.0	111.5	157.3	70.8
Tractors	86.2	85.1	142.9	74.3
Commercial vehicles	96.0	114.0	162.6	86.4
Electrical machinery and equipment	101.0	112.2	172.6	92.0
Agricultural machinery	96.5	101.2	133.4	68.3
Sewing machines	97.0	95.8	152.2	81.0
Machine tools	107.3	110.2	158.6	83.9
Chemicals	96.5	111.0	153.6	78.9
Cotton yarns	96.4	99.7	124.5	71.0
Woollen tops and yarn	106.0	93.5	71.5	76.5
Consumer goods:				
Cotton woven piece-goods	98.8	113.2	147.2	89.8
Woollen woven tissues	100.5	108.7	128.7	81.0
Artificial silk tissues	91.1	114.4	169.4	101.1
Men's cotton apparel	101.0	108.0	142.5	83.9
Passenger cars and chassis	102.8	113.6	166.4	89.1
Paper	86.0	128.5	133.0	64.5
Household utensils and hollowware	93.0	109.5	170.6	100.9
Heating, cooking and plumbing equipment	95.0	117.2	176.8	85.9
Imported commodity: rubber				
Fuels and producers' goods:				
Coal	110.0	144.2	432.6	212.4
Petroleum products	104.4	131.7	398.8	190.4
Iron and steel	120.9	140.1	374.6	172.5
Tractors	101.2	106.9	340.3	180.9
Commercial vehicles	112.7	143.2	387.2	210.4
Electrical machinery and equipment	118.5	140.9	411.2	224.0
Agricultural machinery	113.3	127.2	317.7	166.3
Sewing machines	113.8	120.3	362.6	197.4
Machine tools	125.9	138.5	377.9	204.4
Chemicals	133.3	139.4	365.9	192.0
Cotton yarns	113.2	125.3	296.4	173.0
Woollen tops and yarn	124.4	117.5	170.3	186.2

Table 21 (continued)

Exported commodity	1948	Second Quarter 1950	1951	1952
Consumer goods:				
Cotton woven piece-goods	117.2	142.2	350.7	218.7
Woollen woven tissues	118.0	136.5	306.6	197.2
Artificial silk tissues	106.9	143.6	403.6	246.2
Men's cotton apparel	118.5	135.7	339.3	204.2
Passenger cars and chassis	120.7	142.8	396.3	217.0
Paper	101.0	161.4	316.8	157.2
Household utensils and hollow ware.	109.2	137.6	406.2	245.7
Heating, cooking and plumbing equipment	113.6	147.2	421.0	209.3
Imported commodity: iron ore				
Fuels and producers' goods:				
Coal	94.5	100.0	142.5	163.0
Petroleum products	89.7	91.4	131.4	146.1
Iron and steel	104.0	97.2	123.4	132.4
Tractors	87.0	74.1	112.1	138.8
Commercial vehicles	96.9	99.3	127.5	161.5
Electrical machinery and equipment.	101.9	97.7	135.4	171.9
Agricultural machinery	97.4	88.2	104.6	127.6
Sewing machines	97.9	83.4	119.4	151.4
Machine tools	108.3	96.0	124.5	156.8
Chemicals	97.4	96.7	120.5	147.4
Cotton yarns	97.3	86.9	97.6	132.8
Woollen tops and yarn	107.0	81.5	56.1	142.9
Consumer goods:				
Cotton woven piece-goods	100.7	98.6	115.5	167.8
Woollen woven tissues	101.5	94.7	101.0	151.3
Artificial silk tissues	91.9	999.6	132.9	188.9
Men's cotton apparel	101.9	94.1	111.8	156.7
Passenger cars and chassis	103.8	99.0	130.5	166.5
Paper	86.8	112.0	104.3	120.6
Household utensils and hollow ware.	93.9	95.4	133.8	188.6
Heating, cooking and plumbing equipment	97.7	102.1	138.7	160.6

Table 21 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Imported commodity: palm kernels				
Fuels and producers' goods:				
Coal	80.3	98.2	132.8	106.7
Petroleum products	76.2	89.7	122.4	95.6
Iron and steel	88.3	95.4	115.0	86.6
Tractors	73.9	72.8	104.5	90.8
Commercial vehicles	82.3	97.5	118.9	105.7
Electrical machinery and equipment	86.5	96.0	126.2	112.5
Agricultural machinery	82.7	86.6	97.5	83.5
Sewing machines	83.1	81.9	111.3	99.1
Machine tools	92.0	94.3	116.0	102.6
Chemicals	82.7	94.9	112.3	96.4
Cotton yarns	82.6	85.3	91.0	86.9
Woollen tops and yarn	90.8	80.0	92.3	93.5
Consumer goods:				
Cotton woven piece-goods	85.6	96.8	107.7	109.8
Woollen woven tissues	86.2	92.9	94.1	99.0
Artificial silk tissues	78.1	97.8	123.9	123.6
Men's cotton apparel	86.5	92.4	104.2	102.6
Passenger cars and chassis	88.1	97.2	121.7	109.0
Paper	73.7	109.9	97.2	78.9
Household utensils and hollowware	79.7	93.7	124.7	123.4
Heating, cooking and plumbing equipment	83.0	100.2	129.3	105.1
Imported commodity: lead				
Fuels and producers' goods:				
Coal	78.2	79.9	131.7	119.9
Petroleum products	74.3	73.0	121.4	107.5
Iron and steel	86.1	77.6	114.0	97.4
Tractors	72.0	59.2	103.6	102.1
Commercial vehicles	80.3	79.3	117.8	118.8
Electrical machinery and equipment	84.3	78.0	125.1	126.5
Agricultural machinery	80.6	70.4	96.7	93.9
Sewing machines	81.0	66.6	110.3	111.4
Machine tools	89.6	76.7	115.0	115.4
Chemicals	80.6	77.2	111.3	108.4
Cotton yarns	80.5	69.4	90.2	97.7
Woollen tops and yarn	88.5	65.0	51.8	105.2

Table 21 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Consumer goods:				
Cotton woven piece-goods	83.4	78.7	106.7	123.5
Woollen woven tissues	84.0	75.6	93.3	111.4
Artificial silk tissues	76.1	79.5	122.8	139.0
Men's cotton apparel	84.3	75.2	103.2	115.3
Passenger cars and chassis	85.9	79.1	120.6	122.5
Paper	71.9	89.4	96.4	88.7
Household utensils and hollowware	77.7	76.2	123.6	138.7
Heating, cooking and plumbing equipment	80.8	81.5	128.1	118.2

Source: Tables 13 to 19.

a/ Import price index divided by export price index.

Table 22. United Kingdom: Terms of Trade[a] of Imported Raw Materials and Related Exported Manufactures

Exported commodity	1948	Second quarter 1950	1951	1952
Imported commodity: cotton				
Cotton yarn	109.5	109.4	155.1	122.0
Cotton woven piece-goods	113.4	124.1	183.3	154.2
Cotton clothing	114.7	118.5	177.3	144.0
Imported commodity: wool				
Wool tops and yarns	93.5	123.0	154.6	103.0
Woollen tissues	88.7	142.9	278.4	109.0
Imported commodity: tobacco				
Cigarettes	105.9	104.5	128.5	110.2
Imported commodity: wood-pulp				
Paper and Board	108.3	108.7	155.4	135.3
Imported commodity: iron ore				
Iron and Steel	104.0	97.2	123.4	132.4
Tractors	87.0	74.1	112.1	138.8
Commercial vehicles	97.0	99.3	127.5	161.5
Passenger cars	103.7	99.0	130.5	166.5
Imported commodity: bauxite				
Aluminium sheets	124.2	82.5	107.4	100.6
Imported commodity: copper				
Copper mill products	124.1	102.8	103.1	99.0
Electrical machinery and apparatus	104.1	118.6	147.5	145.6
Copper sulphate	99.4	110.3	90.2	71.1

Table 22 (continued)

Exported commodity	1948	Second quarter 1950	1951	1952
Imported commodity: lead				
Lead derivatives	82.1	69.2	101.5	103.5
Imported commodity: rubber				
Rubber products	121.2	137.6	249.8	158.5
Imported commodity: crude petroleum				
Petroleum products	94.2	109.8	127.9	109.1
Imported commodity: mineral phosphates of lime				
Fertilizers	99.0	103.4	148.8	146.8

Source: Tables 13 to 19.

a/ Import price index divided by export price index.

Chapter 4

COMPARATIVE ANALYSIS OF UNITED STATES AND UNITED KINGDOM UNIT VALUES

92. Comparison of the price behaviour of United States and United Kingdom imports is not without problems. The problem of transportation costs, which may have an important bearing, was discussed in chapter 3. It may also be well to recall that indices for a given commodity may represent widely different varieties in type or grade. Changes in composition may affect comparative prices, as does a shift in the origin of commodities after devaluation from countries which did or did not devalue their currencies; reference was made to such shifts in previous chapters. In explaining divergent movements in unit value in the two countries it is thus necessary to note that an apparent identity of commodities conceals many diverse characteristics, which, together with variations in purchasing techniques and contract positions after the war may explain some of the differences in the period before 1949.

93. Beginning with the fourth quarter of 1949, the effects of devaluation kept United Kingdom import price indices[1/] higher than those of the United States. Obviously devaluation affected unit values differently in terms of a non-devalued currency than in terms of one which had been devalued. Expressed in dollars, the price of a commodity from non-devaluing areas would not be changed by devaluation but prices in depreciated currency would result in lower dollar prices, by a margin within the range of devaluation. Conversely, in terms of sterling, goods from non-devaluing countries would be expected to rise in price by the full 44 per cent exchange appreciation, while commodities from devaluing countries would increase by some part of this differential, depending on the play of market forces and the opportunities for revision of long-term purchase contracts.

1/ The indices measure unit values expressed only in dollars for the United States and exclusively in sterling for the United Kingdom. Chapter 5 of this study gives cross relation indices in which the rate of exchange is also considered.

94. The general price trend of United States imports late in 1949 and early in 1950 was downward, owing both to the after-effects of the recession in 1949 and, depending on the origin of commodities, to the effects of devaluation. In the United Kingdom, however, the direction was uniformly upward, starting from the first quarter of 1950, rising steadily from there to higher peaks than in the United States, and dropping less thereafter.

95. This pattern is subject to a great deal of variation when applied to individual commodities. While sterling commodities reacted to devaluation by higher prices in terms of sterling, the degree of increase varied considerably, depending upon the relative strength of demand. Moreover, varying specific market reactions in the United States and United Kingdom caused different degrees of post-devaluation adjustments for which raw jute is probably an extreme example:[2/] the highest United States index figure after 1949 just barely exceeded 100.0 while in the United Kingdom a high of 188.4 was reached in the fourth quarter of 1951, a differential far greater than the devaluation ratio. Finally, in the United States a shift to goods from devaluing countries, whose price was cheaper in terms of dollars, depressed average unit values, as occurred in the case of wool. The United Kingdom, on the other hand, could no longer shift from higher priced hard currency sources to any great extent because this had already been done nearly as far as feasible to cope with recurrent dollar shortages.

96. Turning to exports of manufactured goods, there is a different pre-devaluation price behaviour in the United States and the United Kingdom, especially noticeable in consumer goods. In the United States, the general trend was towards lower export unit values between 1948 and the end of 1949. In the United Kingdom, however, the tendency was reversed, reflecting a continued price rise in that period. The explanation for this dissimilarity may be found in the different speeds of adjustment of demand and supply after the war in the two countries. In the United States, price controls were abandoned early, and the resulting price increases had generally run their

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2/ This was discussed in chapter 2.

course by 1948; supply had largely caught up with post-war shortages and a slackening in demand could bring about a downward trend of prices, as it did in 1949. In the United Kingdom on the other hand, domestic demand had been restrained by rationing and the general cost level was held down by controls much longer than in the United States; the adjustment came more gradually and stretched out much longer into the pre-devaluation period. The rising price trend was further strengthened by a growing demand for non-dollar industrial exports, of which the United Kingdom is a major supplier, while continental and Far Eastern competition was then only slowly gaining strength.

97. The cost-raising effects of devaluation on United Kingdom export unit values of manufactured goods made themselves felt only gradually, chiefly through the influence of higher raw material prices; in that respect, price rises following Korean hostilities overlapped the effects of devaluation and it is difficult, if not impossible, to separate them. All through 1950 export unit values increased only slowly.

98. Thus, by the end of 1950 the general price index of exported manufactures did not significantly differ in the United States and the United Kingdom. During 1951, however, the price rise accelerated in the United Kingdom rather sharply, resulting, by the end of the year, in sizably higher indices compared with the United States. In the first two quarters of 1952, the upward movement continued in the United Kingdom for many producers' goods, though at a reduced rate, while prices of textile yarns and some consumer goods tended downward in the second quarter, in line with international trends. In the United States, this tendency was more pronounced and became visible even sooner. As a result, in the final period of this study, United Kingdom export unit value indices remain considerably higher in sterling than the United States indices in dollars but the difference is somewhat smaller than that observed for many imported primary products.

99. This general trend should not be allowed to obscure substantial differences that developed between the United States and United Kingdom price movements for specific classes of exports, although, as noted above, comparison is rendered somewhat hazardous by lack of uniformity in the composition of some classes of

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manufactures exported by both countries. Among items where this difficulty seems to be least significant, some sizable differences can be noted in the final period covered, namely the second quarter of 1952. Thus, the index for exported steel products rose to 157.0 in the United Kingdom compared with only 115.7 in the United States, while the difference in copper products is much smaller, 177.7 and 159.7, respectively. Similarly there is a large differential in cotton yarns, 156.5 compared with 109.5, but only a small one in wool yarns,[3/] 145.4 and 141.5. To determine the reasons for the latter differences would require cost analysis.

100. Comparison of the terms of trade of pairs of import and export commodities in the United States and the United Kingdom is limited to import commodities equally important in both countries and hence included in tables 10 and 20. The price rise which devaluation caused in United Kingdom imports was, in the second quarter of 1950, reflected in better terms of trade for identical primary products in the United Kingdom than in the United States. The higher price peak of many such commodities in the second quarter of 1951 in the United Kingdom resulted in much better terms of trade for primary products in the United Kingdom, compared with the United States, because, as noted, the import index rose higher in the United Kingdom than in the United States while, at that time, the prices of exports had not risen much in either country. A year later, the position was reversed, since export prices in the United Kingdom rose much more steeply than in the United States, while differences in the import unit value indices were less pronounced. As a result, the amplitude of fluctuations of the terms of trade of primary products was greater in the United Kingdom than in the United States and the spread between high and low ratios for various pairs of commodities was also greater in the United Kingdom.

101. Individual commodities, however, differed greatly in their purchasing power, compared with various manufactures in the United States and the United Kingdom. The following chapter mentions some sterling commodities in order to examine the effects of devaluation on their terms of trade.

3/ Including tops in the case of the United Kingdom.

Chapter 5

CASE STUDY OF POST-DEVALUATION PRICE MOVEMENTS OF COMMODITIES FROM THE STERLING AREA IN RELATION TO UNITED STATES AND UNITED KINGDOM EXPORT PRICE MOVEMENTS

102. The preceding chapters of this report have been exclusively concerned with movements of United States import and export prices, and of United Kingdom import and export prices, in their bilateral trade relationship with the rest of the world. While such bilateral trade may have been in the post-war period the most common pattern, it was not the only one; triangular[1/] or multilateral trade was not altogether absent. One triangular pattern of trade, involving the United States and the United Kingdom, in the period under review, is of interest because it illustrates in a special manner the progressive effects of devaluation on the import and export price movements which are the subject matter of this report. The present chapter discusses the relative movement of unit values arising from the sale of primary products to the United States in terms of a new alternative: it assumes conversion of dollar proceeds from such sales into sterling and the purchase of United Kingdom manufactures from these proceeds. Conservation of scarce dollar resources can be assumed to be the most common motivation of such preference for sterling goods, but the relative price advantage available by this course to primary producers after devaluation should not be lost sight of. While this course was open to any country able to secure the desired deliveries, the best known example is the operation of the dollar pool of the sterling area. Because of the general interest attaching to price alternatives in international trade, the above-mentioned triangular exchange is here contrasted with two types

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1/ Such triangular flows had been the rule rather than the exception in the traditional pattern of world trade preceding its collapse in the nineteen thirties. Then, however, relative prices had been the prime determinant of the direction pattern of trade. It is, perhaps, a measure of the change which has occurred, that price relationships have become a matter of interested concern only after the direction of a considerable part of trade has been pre-determined by priority calls on limited exchange availabilities.

of bilateral exchange: that of dollar goods bought from the United States against commodities sold there; and that of sterling goods bought in the United Kingdom against the sale of the same commodity in the United Kingdom instead of the United States.

103. Such a comparison was undertaken on an experimental basis in the hope that it would also throw light on the immediate consequences and the more remote effects of sterling devaluation on some commodity price relationships. As a first step a number of sterling commodities were selected of which the United States is a substantial buyer from the sterling area. In order to simplify the task, only the largest such suppliers of each commodity were included; these accounted for the bulk of exports to the United States. Table 23 lists the commodities selected and their country of origin within the sterling area, with indices for the four time periods used in this report. However, January to September 1949 has been used as a pre-devaluation base.

104. These United States unit value indices are shown in table 23 as the first line under each commodity heading. The second line presents these indices converted from their original dollar base into sterling at their post-devaluation equivalent of 143.9. The third line under each commodity listing repeats the United Kingdom import unit value index[2/] for comparison.

105. A comparison of the United States dollar unit value indices in table 23 with the indices of all imports shown in tables 1 to 5 illustrates the difference between unit values of imports from the sterling area and those from all producing areas. As a rule this difference is not great; substantial differential in the price movement of tea may be explained by the fact that this item included a number of different types and grades. Thus Chinese tea, excluded in table 23 but included in table 1, is not strictly comparable to the types which come from

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2/ In contrast to the United States, which draws substantial shares of imports from countries outside the sterling area, the United Kingdom imports of these commodities originate preponderantly in the sterling area; the statistical effort of segregating the residual did not seem justified. Consequently, the United Kingdom index shown in table 23 and utilized in table 25 is based on the full year 1949, including that rather small segment of devaluation effects which affected actual imports in the last quarter of 1949, notwithstanding all time lags.

Ceylon or India. In the case of wool, a discrepancy arises due to different composition: table 23 is based entirely on medium and fine grades of worsted, which form the bulk of United States imports from the sterling area, while the index in table 1 includes also carpet wool, mostly of non-sterling origin, which did not always move parallel with other types. Finally, a sharp divergence of the index of tin metal in the second quarter of 1951 may be explained by a difference in country origin, related to contract prices, dating from different time periods, for merchandise arriving in the quarter following a sharp price break. The average unit value of all imports in table 1 was depressed by sizable quantities from non-sterling countries at much lower prices, while sterling tin which arrived at the same time still carried the higher prices of prior contracts.

106. When comparing the indices of United States prices, converted into sterling at post-devaluation rates, with the United Kingdom sterling series (second and third lines under each commodity heading), the validity of comparisons must be considered. In line with the method employed throughout this study, no comparison of absolute prices is intended or, indeed, possible on the basis of data presented in the form of indices. It clearly follows that all differences between the United Kingdom indices and the United States indices imply different movements of average unit values relative to the base year only. With this reservation, it is found that in the United States the average unit value of rubber in terms of sterling moved consistently higher than in the United Kingdom; the difference is greatest in 1952 because the import unit value fell more sharply in terms of sterling than of dollars. In jute, however, the reverse position prevailed, due, no doubt, to the divergent intensity of demand for raw jute for different end uses;[3/] in the case of jute the devaluation differential could never quite make up for the lower market level in the United States. In the case of wool the divergence is largely explained by an unusually large premium for fine worsted counts in the base year. As this price differential shrank in later periods, the average unit value index in the United States, where the sample included only worsteds, mostly of the finer type, was depressed; in the United

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3/ As explained in chapter 2.

Kingdom, however, the index included all imports containing a sizable share of other types, though fine merino wool contributed the largest portion.[4/]

107. As the next step, the United States import unit value indices, converted into sterling as stated, were related to selected United Kingdom export unit value indices (table 24).[5/] Thus the method of presentation previously applied to bilateral transactions of the United States and the United Kingdom is now used to relate United States import unit values, converted into sterling, to indices of the unit value of United Kingdom exports against which they could have been exchanged. The wide dispersion of terms of trade becomes again evident, though this small sample of commodities does not include the pairs which display the greatest contrasts. Thus, in the second quarter of 1951, the lowest and highest indices for rubber were 291.1 and 408.6 and in 1952 the spread was even wider percentage wise.

108. A comparison of the terms of trade prevailing in the triangular relationship with those in bilateral patterns is offered in table 25. It was elaborated by relating the import unit value indices of table 23 to export unit values in the following order, which corresponds to the listing under each commodity heading in table 25:

US/UK: US import unit value index of sterling commodities, converted into sterling, divided by UK export unit value index.

US/US: US import unit value index of sterling commodities divided by US export unit value index.

UK/UK: UK import unit value index covering all trade, divided by UK export unit value index.

109. The resulting indices represent three types of trade which can be compared with each other in three pairs of alternatives; for illustration and greater ease of formulation only, these directional patterns of trade will be exemplified in

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4/ Available source material for the United Kingdom did not afford a breakdown by count.

5/ These indices were drawn from tables 17 to 19, with the full year 1949 as a basis. As mentioned before, devaluation does not appear to have affected United Kingdom export unit values before 1950; thus the use of 1949 as a base cannot be expected to introduce any bias.

terms of sterling rubber imports into the United States or the United Kingdom, exchanged against steel exports.

110. The first comparison based on the second and third line of table 25 is one of conventional bilateral trade: rubber would be sold to the United States and exchanged against steel from the latter, or, alternatively, sold to the United Kingdom in exchange for British steel. Relative to the base year - and not, as explained before, in absolute terms - the average unit value ratios of rubber, and also of the other four commodities, displayed, after devaluation, a distinct tendency to move higher in the United Kingdom than in the United States. This outcome is not surprising since in the former all commodity prices had increased under the impact of devaluation, while export prices of manufactures only rose slightly. In the United States, on the other hand, the prices of primary products, with the exception of rubber, had barely begun to rise from a trough which was deeper than that of manufactured products, as is usually the case in recessions. In the second quarter of 1951 the primary product fared even better, in relative terms, because the price peaks tended to be higher in the United Kingdom than in the United States, as was seen in a preceding section. A year later the difference was reduced, in some instances sharply, since in the United Kingdom import prices fell and export prices rose more steeply than in the United States. In the second quarter of 1952, the comparative index movement of the terms of trade of rubber in the two countries was even on the verge of being reversed, depending on the export commodity used for comparison; thus, relative to the base year, the position of rubber was still more favourable in the United Kingdom in terms of passenger cars, but, in terms of the other manufactures, whose price had risen more sharply in the United Kingdom, its position had already become more favourable in the United States.

111. Next, two different types of triangular trade are discussed, in the form of a comparison between alternatives of exchange, using rubber and steel as an illustration. In the first case, rubber would be sold to the United States. Two alternatives for obtaining steel in return can be compared: (a) American steel could be bought in the United States; (b) the dollar proceeds from rubber sales could be converted into sterling and British steel bought for it in the United

Kingdom. The statistical base for this comparison can be found in the first two lines of table 25. In 1950, the indices diverged by nearly the full devaluation differential. In 1951, the spread was nearly as large, but by the second quarter of 1952 the gap had nearly vanished; the steeper price rise of the manufactured commodity in the United Kingdom compared with the United States, had almost eliminated the initial advantage in terms of trade which devaluation had imparted to the exporter of rubber to the former country. In terms of manufactured commodities whose United Kingdom export price index rose less than that of steel, the differential caused by devaluation was being narrowed more slowly. Clearly, the time required for equalization of terms of trade after devaluation depends on the relative rate of cost and price increases of various export commodities.

112. Similar comparisons could be made of the relative price movements of jute or the other commodities. The pattern found for rubber is invariably repeated: devaluation conspicuously improved the terms of trade of the primary product relative to exports of manufactures from the United Kingdom. This advantage, however, was greatly reduced by 1952, the extent depending on the pairs of commodities compared.

113. In the second, two different alternatives are compared, both involving the purchase of steel in the United Kingdom in return for rubber, again using these two commodities for illustration: (a) rubber would be sold in the United States, the dollar proceeds converted into sterling and British steel bought in the United Kingdom; (b) rubber would be sold in the United Kingdom and British steel bought there in return. The statistical base for this comparison is found in the first and third lines in table 25.[6/] It shows that the relative movement of the indices differs as between commodities. Clearly, in terms of the same United Kingdom export commodity, the controlling factor is the relative price movement of the imported commodity in the United States and the United Kingdom, compared in

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5/ It will be realized that one segment of the exchange pattern described above, corresponding in the example to the first line in table 25, is common to both cases of triangular exchange, appearing as 111 (a) and 113 (b), respectively.

terms of sterling. Quite naturally, therefore, the imported commodity fared relatively better if sold in a country where the import unit price index rose higher, even after the full devaluation differential had been taken into account when converting the dollar unit value series into sterling. In other words, relative to the base year, rubber rose after devaluation more in terms of dollars than in terms of sterling and by 1952 had fallen more in terms of sterling than in terms of dollars. Jute, on the other hand, had, after devaluation, dropped lower in terms of dollars than in terms of sterling; this differential was reduced in the course of the next two years but the basic relationship was not reversed.

114. This attempt at analysing triangular trade patterns with respect to relative price movements of commodities could be extended to answer more questions for a wider range of variables and in greater detail than it could be undertaken in this study. It may also serve as an example to show that, notwithstanding the great dispersion of price movements which emerged from the commodity breakdown, over-riding problems such as the effects of devaluation can be studied. At the same time, the individual causative factors behind these price movements can be traced in greater detail than in an analysis of broad aggregates.

Table 23. Unit Value Indices of Selected Commodities Imported from the Sterling Area
(January-September 1949 = 100)

Commodity and importing country	Country of origin	Currency	1948	Second quarter 1950	1951	1952
Rubber:						
United States	British Malaya and Ceylon	Dollars.....	110.5	108.1	308.7	230.2
United States	British Malaya and Ceylon	Dollars converted into sterling a/.	110.5	155.6	444.2	331.3
United Kingdom b/	All countries	Sterling.....	112.7	143.2	438.7	270.8
Jute:						
United States	India and Pakistan	Dollars.....	88.0	68.0	79.9	102.5
United States	India and Pakistan	Dollars converted into sterling a/.	88.0	97.9	112.1	147.5
United Kingdom b/	All countries	Sterling.....	90.6	112.8	126.4	154.8
Tin metal:						
United States	United Kingdom and British Malaya	Dollars.....	90.9	77.7	159.5	116.9
United States	United Kingdom and British Malaya	Dollars converted into sterling a/.	90.9	111.8	229.5	163.2
United Kingdom b/	All countries	Sterling.....	102.5	111.8	243.7	181.4
Tea:						
United States	India and Ceylon	Dollars.....	98.5	92.0	96.0	84.1
United States	India and Ceylon	Dollars converted into sterling a/.	98.5	132.4	138.1	121.0
United Kingdom	All countries	Sterling.....	96.0	102.4	120.1	115.8
Wool: c/						
United States	Australia, New Zealand and South Africa	Dollars.....	78.2	93.3	209.6	90.0
United States	Australia, New Zealand and South Africa	Dollars converted into sterling a/.	78.2	134.3	301.6	129.5
United Kingdom b/	All countries	Sterling.....	84.6	149.9	398.4	149.7

Source: For United States data, official United States trade statistics; for United Kingdom data, tables 13 to 16.

a/ Pre-devaluation rate = 100; post-devaluation periods converted at ratio 4'03/2'80 = 143.9.

b/ 1949 = 100.

c/ For the United States, combing wool, finer than 44s; for the United Kingdom, all imports.

Table 24. Terms of Trade[a/] of United States Sterling Commodity Imports and United Kingdom Exports of Selected Manufactures

Exported Commodity	1948	Second Quarter 1950	1951	1952
Imported commodity: tea				
Iron and steel	105.7	129.5	117.9	77.1
Copper mill products	123.4	113.0	90.5	68.1
Commercial vehicles	98.6	132.4	121.9	94.0
Cotton yarn	98.9	115.8	93.4	77.3
Artificial silk fabrics	93.5	132.8	127.0	110.0
Passenger cars	105.5	132.0	124.8	97.0
Imported commodity: rubber				
Iron and steel	118.6	152.3	379.3	211.0
Copper mill products	138.5	132.8	291.1	186.4
Commercial vehicles	110.6	155.6	392.1	257.4
Cotton yarn	110.9	136.1	300.5	211.7
Artificial silk fabrics	104.8	156.1	408.6	301.2
Passenger cars	118.3	155.1	401.3	265.5
Imported commodity: jute				
Iron and steel	94.4	95.8	95.7	93.9
Copper mill products	110.3	83.5	73.5	83.0
Commercial vehicles	88.1	97.9	98.9	114.6
Cotton yarn	88.4	85.7	75.8	94.2
Artificial silk fabrics	83.5	98.2	103.1	134.1
Passenger cars	94.2	97.6	101.3	118.2
Imported commodity: wool				
Iron and steel	78.2	131.4	257.6	82.5
Copper mill products	98.0	114.6	197.6	72.9
Commercial vehicles	78.3	134.3	266.2	100.6
Cotton yarn	78.5	117.5	204.1	82.7
Artificial silk fabrics	74.2	134.7	277.5	117.7
Passenger cars	83.7	133.9	272.4	103.6

Source: For United States imports, table 23. For United Kingdom exports, tables 17 to 19.

a/ United States import unit value index, converted into sterling (see footnote a/ of table 23), divided by United Kingdom export unit value index.

Table 24. Terms of Trade of United States Sterling Commodity Imports and United Kingdom Exports of Selected Manufactures (cont'd)

Exported Commodity	1948	Second Quarter 1950	1951	1952
Imported commodity: tin bars, etc.				
Iron and steel	97.5	109.4	196.0	107.1
Copper mill products	113.9	95.4	150.4	94.7
Commercial vehicles	91.0	111.8	202.6	130.7
Cotton yarn	91.3	97.8	155.3	107.5
Artificial silk fabrics	86.2	112.1	211.1	152.9
Passenger cars	97.3	111.5	207.3	134.8
Imported commodity: sheep and lamb skins				
Iron and steel	152.7	171.6	202.1	96.2
Copper mill products	178.3	149.7	155.1	85.0
Commercial vehicles	142.4	175.4	208.9	117.4
Cotton yarn	142.9	153.5	160.1	96.5
Artificial silk fabrics	135.0	175.9	217.8	137.4
Passenger cars	152.4	174.9	213.8	121.1
Imported commodity: goat skins				
Iron and steel	127.8	175.8	173.6	78.7
Copper mill products	149.2	153.3	133.2	69.6
Commercial vehicles	119.2	179.7	179.4	96.0
Cotton yarn	119.6	157.2	137.6	79.0
Artificial silk fabrics	113.0	180.2	187.0	112.4
Passenger cars	127.5	179.2	183.6	99.0

Table 25. Comparative Terms of Trade [a/] of Selected United States and United Kingdom Imports and United Kingdom Exports of Selected Manufactures

Exported commodity	Basic index: Imports/Exports	1948	Second quarter 1950	1951	1952
	Imported commodity: rubber				
Iron and steel	US/UK	118.6	152.3	379.3	211.0
	US/US	111.4	110.9	257.7	199.0
	UK/UK	120.9	140.1	374.6	172.5
Commercial vehicles (motor trucks)	US/UK	110.6	155.6	392.1	257.4
	US/US	...	118.8	303.2	213.9
	UK/UK	112.7	143.2	387.2	210.4
Artificial Silk Fabrics (synthetic fabrics)	US/UK	104.8	156.1	408.6	301.2
	US/US	79.6	115.6	263.2	247.8
	UK/UK	106.9	143.6	403.6	246.2
Passenger cars	US/UK	118.3	155.1	401.3	265.5
	US/US	125.3	107.3	285.8	192.6
	UK/UK	120.7	142.8	396.3	217.0
	Imported commodity: jute				
Iron and steel	US/UK	94.4	95.8	95.7	93.9
	US/US	88.7	69.7	65.0	88.6
	UK/UK	97.2	110.3	107.9	98.6
Commercial vehicles (motor trucks)	US/UK	88.1	97.9	98.9	124.6
	US/US	...	74.7	76.5	95.3
	UK/UK	90.7	112.8	111.6	120.3
Artificial silk fabrics (synthetic fabrics)	US/UK	83.5	98.2	103.1	134.1
	US/US	63.4	72.7	66.4	110.3
	UK/UK	86.0	113.1	116.3	140.7
Passenger cars	US/UK	94.2	97.6	101.3	118.2
	US/US	99.8	67.5	72.1	85.8
	UK/UK	97.0	112.5	114.2	124.0

Table 25 (continued)

Exported commodity	Basic index: Imports/Exports	1948	Second quarter 1950	1951	1952
	Imported commodity: tin bars, etc.				
Iron and steel	US/UK	97.5	109.4	196.0	107.1
	US/US	91.6	79.7	133.1	101.0
	UK/UK	110.0	109.4	208.1	115.5
Commercial vehicles (motor trucks)	US/UK	91.0	111.8	202.6	130.7
	US/US	...	85.4	156.7	108.6
	UK/UK	102.6	111.8	215.1	140.9
Artificial silk fabrics (synthetic fabrics)	US/UK	86.2	112.1	211.1	152.9
	US/US	65.4	83.1	136.0	125.8
	UK/UK	97.2	112.1	224.2	164.9
Passenger cars	US/UK	97.3	111.5	207.3	154.8
	US/US	103.1	77.2	147.7	97.8
	UK/UK	109.7	111.5	220.1	145.4
	Imported commodity: tea				
Iron and steel	US/UK	105.7	129.5	117.9	77.1
	US/US	99.3	94.4	90.1	72.7
	UK/UK	103.0	100.2	102.6	73.8
Commercial vehicles (motor trucks)	US/UK	98.6	132.4	121.9	94.0
	US/US	...	101.1	94.3	78.2
	UK/UK	96.0	102.4	106.0	90.0
Artificial silk fabrics (synthetic fabrics)	US/UK	93.5	132.8	127.0	110.0
	US/US	70.9	98.4	81.8	90.5
	UK/UK	91.1	102.7	110.5	105.3
Passenger cars	US/UK	105.5	132.0	124.8	97.0
	US/US	111.7	91.4	88.9	70.4
	UK/UK	102.8	102.1	108.5	92.8

Table 25 (continued)

Exported commodity	Basic index: Imports/Exports	1948	Second quarter 1950	1951	1952
	Imported commodity: wool				
Iron and steel	US/UK	78.2	131.4	257.6	82.5
	US/US	78.8	95.7	175.0	77.8
	UK/UK	90.9	146.7	340.2	95.4
Commercial vehicles (motor trucks)	US/UK	78.3	134.3	266.2	100.6
	US/US	...	102.5	205.9	83.6
	UK/UK	84.7	149.9	351.6	116.3
Artificial silk fabrics (synthetic fabrics)	US/UK	74.2	134.7	277.5	117.7
	US/US	56.3	99.8	178.7	96.9
	UK/UK	80.4	150.4	366.5	136.1
Passenger cars	US/UK	83.7	133.9	272.4	103.8
	US/US	88.7	92.7	194.1	75.3
	UK/UK	90.7	149.4	359.9	120.0

Source: For imports, table 23; for exports, tables 17 to 19. Where the United Kingdom designation differs from that used in the United States, it is given in parenthesis.

a/ Import unit value index divided by export by unit value index.

Appendix A

NOTE ON SOURCES AND METHODS

Sources

The present study is based on the trade statistics of the United States and the United Kingdom. For the United States, the following publications of the Bureau of the Census of the Department of Commerce were used:

Report No. FT 110: United States Imports of Merchandise for Consumption

Report No. FT 410: United States Exports of Domestic and Foreign Merchandise

Quarterly Summary of Foreign Commerce of the United States

The Quarterly Summary did not always provide the required breakdown by the smallest unit of statistical classification; hence, the quarterly totals of value and quantity had to be obtained from the monthly reports FT 110 and FT 410. The reports used for this study were those compiled for special trade,[1/] thus excluding imports into bonded warehouses or free zones and excluding exports of foreign merchandise. Valuation of imports into the United States approximates values f.o.b. the country of origin; valuation of exports is f.o.b. at the United States border.

For the United Kingdom, assistance by the Board of Trade in supplying a large number of import unit values is acknowledged; to that extent computations of value and quantity from quarterly totals were eliminated. For all other United Kingdom imports and for United Kingdom exports, import unit values were calculated from the monthly Accounts relating to Trade and Navigation of the United Kingdom. The recording system applying to the United Kingdom material used in this study covers general imports, excluding trans-shipment under bond and special exports, including only produce and manufactures of the United Kingdom, and excluding exports of imported merchandise. Valuation of imports is at c.i.f. prices, excluding import duties and purchase taxes, that of exports is f.o.b. including inland freight but excluding purchase taxes.

1/ As defined in United Nations publications: see the Introduction to the

Selection of commodities

An attempt was made to illustrate relevant price movements in international trade by analysing a relatively small list of commodities. Thus, in the case of the United States, a total of about 5,000 single items of classification were narrowed to the list of about 250 commodities included in the study. The choice was determined largely by concentrating on imports of primary products and exports manufactures. In addition, selection was guided by relative importance to both exporting and importing countries, taking the structure of trade of under-developed countries and their needs for development goods as an additional guide. Hence, items like nickel, chiefly exported by economically more advanced primary producing countries, were not included; and a number of manufactured items, useful for development but exported in relatively small individual volume, like tools, were omitted.

Homogeneity was also a consideration in the process of selection. If the smallest unit of statistical classification of a commodity included a great variety of types, grades, sizes and degrees of manufacture, a change of composition would affect the average unit price even if no actual price change took place. Items of such obvious heterogeneity had to be excluded from the outset. The final selection of commodities, therefore, represents a compromise between the sometimes conflicting criteria of maximum coverage and homogeneity.

Use of unit values and ratios

The use of unit values, the quotient of total values divided by quantities computed from trade statistics, involves a number of statistical pitfalls.[2/] One problem, that of homogeneity, has already been mentioned: no single commodity classification is ever completely homogeneous, but statistical distortion arising from changes in composition is minimized if a sufficiently detailed breakdown into sub-species is available; similarly, heterogeneity of size is less disturbing if the commodity is broken down into fairly narrow

2/ Some sources of error in the statistics were mentioned in Relative Prices of Exports and Imports of Under-developed Countries, United Nations Publication: 1949, II.B.3, pages 136 ff.

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categories of size.[3] Another occasional source of heterogeneity is geographic origin. If imports from different countries include commodities purchased at different contract prices, the average unit value will be affected by a change of composition. Since a statistical breakdown by origin was lacking as explained in Chapter 1, known geographical changes which affected the unit price were discussed in the text.

It is evident that unit values derived from trade statistics do not conform to an ideal concept of fully homogeneous commodity classifications. Since this problem has been under constant consideration during the course of the study, it is not believed that it caused major distortions which escaped attention. As a rule, heterogeneity manifests itself in erratic movements of unit values. To cause a systematic bias, a short-run change of composition would have to be so large and conspicuous that it could hardly fail to be detected by inspection and analysis. None the less, heterogeneity is one of the elements which suggest caution in interpreting the results of this study too precisely. Hence, small percentage changes in unit value indices should not give rise to generalizations. On the other hand, the price movements disclosed by this study are of such magnitude that they would not be materially affected by distortions caused by lack of homogeneity.

The relation between export and import unit values is discussed under the heading of "related prices of imports and exports", or terms of trade. While the latter term is customarily applied to average price ratios of all or most exports and imports of a country, in this study it has been extended to include price ratios of specific export and import commodities. The pairing of export and import commodities for the determination of relative price ratios offers an almost infinite opportunity for permutations. For the purposes of this study, a number of primary commodities which loom large in the import trade of the United States and the United Kingdom were selected; they were related to a number of producers' and consumers' goods deemed important to under-developed countries. Importance is, however, a relative concept since individual primary producing countries are interested in different commodities, though the variety of their imports is usually wider than that of their exports. While

3/ Relative Prices of Exports and Imports of Under-developed Countries, pages 133 ff. For specific difficulties connected with the use of number or weight as the statistical unit for machinery, see chapter 2 of the present study.

about 300 pairs of commodities are listed in the sections on the United States and the United Kingdom terms of trade, additional ratios may be computed with the help of the tables listing the unit values of imports and exports separately. In this study the ratio used is that of imports over exports of the United States and the United Kingdom, thus relating primary products exported by less developed countries to the manufactures they import.

Such terms of trade of commodities are "simultaneous price ratios", referring to transactions recorded by official trade statistics in specified periods of time. This procedure, inherent in the use of unit values, implicitly sets a time for an "exchange" of commodities at the point of imports and exports at United States and United Kingdom ports, irrespective of the time of actual purchase. A quarterly computation still allows for moderate time lags between purchase and shipment or, in the case of imports, between shipment and arrival; clearly, more prolonged delays in producing goods for export, including those inherent in long-term contracts, affect average unit values in a characteristic manner: the transactions recorded in any one time period represent a mixture of goods purchased in that period and others contracted for at earlier dates. Hence, unit prices lag behind market prices from three to six months. Moreover, in times of sudden large changes in prices, a sizable change in the composition of trade in the same commodity at different purchase prices, is apt to cause fluctuations in average unit values, discussed at numerous points in the study.

Another more subtle type of time lag fails to be reflected in simultaneous price ratios. If a primary producing country contracts for goods subject to long delivery delays and does not earmark proceeds from current exports for their payment, an intermediate drop in commodity prices would bring about worsened terms of trade, compared with those prevailing at the time of contract; the same situation would occur if the goods had been bought on credit, for payment from future export proceeds.

The problem of including transportation costs in the unit values deserves special attention. In the United Kingdom, import unit values include transportation costs to the port of arrival; in the United States, however statistical entries are in most cases adjusted to approximate values at the

point of shipment. For the purpose of this study it was considered neither necessary nor feasible to adjust United Kingdom unit values to an f.o.b. basis, or, conversely, United States unit values to a c.i.f. basis, for reasons to be set forth presently.

This study is not concerned with absolute prices but with price movements relative to a base year. Hence an absolute increase in transportation cost would not affect an index so long as its proportion to the c.i.f. unit value of which it forms a part remains unchanged. The extent of such a divergence is minimized by the fact that prices and freight rates tend to move in the same direction. Moreover, wherever transportation cost is only a relatively small component of c.i.f. prices, any divergence of transportation costs and prices would cause only a small change in the price index. As pointed out in Chapter 3 this can reasonably be assumed to apply to most commodities included in this study, though possibly in the cases of commodities which are inexpensive and bulky, and have to be hauled over long distances, an increase in transportation costs disproportionate to the increase in price took place. On the whole, however, the effects of divergent changes between transportation costs and prices can be assumed to be relatively small compared with the magnitude of price swings characterizing the period investigated.

While it was reasonable to assume that an adjustment of c.i.f. unit values was not essential, it would have been desirable had not the difficulties appeared formidable. Statistics of freight rates are severely limited in type and coverage. Variations between conference and non-conference rates and between these and individual charter rates are large, and their effect on the movement of specific commodities is hard to assess. The arbitrary elements involved in an attempt at adjustment within the limits of the present study may well have led merely to the assumption of relative insignificance set forth in the preceding paragraph.

Construction of indices

The problems involved in weighting individual price ratios for the purpose of combining them into group indices have been discussed at length in the

earlier study.[4] In a short-term study like the present one, there did not appear to be any special advantage in favour of either of the two methods, base period weighting or current period weighting. A few considerations, however, made base period weighting the more appropriate method for the purpose of this study. The "current base" for eleven out of fourteen time periods would be three months, rather short period for a quantity weight. Yearly figures offering a wider base were, on the other hand, available for 1948 and 1949. If, therefore, one of these yearly figures were used as a basis for fixed weighting, the more volatile quarterly figures could be eliminated for weighting purposes. Moreover, fixed base weighting would keep fluctuations in quantity from being reflected in the index and would make price changes in succeeding periods more comparable.[5]

The indices presented in this study are, thus, all of the base weight (Laspeyres) type. In other words, they measure the average change in price of a commodity "basket" of indentical base year composition throughout. A large number of tests were, however, made to determine whether current period weighting (Paasche-index) would produce substantially different index numbers; such a deviation, indicating a change in the group's composition, would be worthy of attention. In most cases, there were no discrepancies, or only insignificant ones between the two types of index. In the cases where the change in composition seemed significant, it was mentioned in the text or in the footnotes to the tables.

Although in selecting a base year for weighting purposes, 1948 might appear a more nearly "normal" year than 1949 - provided any standard of relative normalcy could be established in the post-war period - in 1949 the United States introduced more detailed statistical classifications which permitted, in many instances, weighting by more homogeneous sub-groups. This statistical advantage would have been lost if 1948 were selected as the base year. The year 1949 was therefore adopted as a base even though some average

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4/ Relative Prices of Exports and Imports of Under-developed Countries, pages 137 ff.

5/ On this point, see the observations in Board of Trade Journal, 4 August 1951, pages 226 ff.

annual prices may reflect the effects of the devaluations which occurred late in September of that year. Since this study deals with unit values instead of prices, the inherent time lags tend to minimize the effects of devaluation on the annual total. By showing the first nine months and the last three months separately in the tables, the consequences of devaluation, which occurred in the fourth quarter, become visible.

The system of grouping commodities which was adopted for constructing the combined indices was determined by the stated aim of the study: to provide a detailed insight into the price movements of classes of commodities. When individual commodities display divergent price movements their aggregation into the traditional types of comprehensive index tends to blur the differences which are of interest to countries trading in such commodities. Therefore, in the field of primary products only sub-species of the same commodity were combined into a single index.

For manufactured goods, a functional approach was adopted; they were divided into classes of producers' goods and of consumers' goods, rather than into semi-manufactures and manufactures. The system of combining all items made of a single or of a heterogeneous group of raw materials, irrespective of the stage of manufacture, was not adopted for this study. An index, for example, of "non-ferrous metals and manufactures thereof" contains a great variety of items whose price movement is determined not only by divergent raw material prices but by different ratios of raw material costs to total costs at various stages of manufactures. Even an index of "iron and steel and manufactures thereof" conceals substantial variations in price movements; as the study disclosed, basic steel mill products tend to advance in price more than consumer goods which in time may be of less interest than essential producers' goods to a country in a more advanced stage of development.

Only closely related commodities were combined for the indices shown in this study; they were as homogeneous as possible from the point of view of end use and, wherever feasible, they were comparable with regard to the stages of manufacture from related raw materials. Thus, among producers' goods, the index for iron and steel includes only basic mill products and excludes consumer goods; in the textile group, yarns were listed as producers'

goods and fabrics as consumer goods and, in addition, they were subdivided by types of fibre. Some exceptions had to be made, however. The paper group includes very different products if the functional criterion of end use is applied. Any grouping of chemicals is inevitably heterogeneous and for that reason the combined index was supplemented by partial indices of more closely related items. Moreover, the chemicals selected for listing among producers' goods are chiefly raw materials or intermediate products used in industry; a number of component items, however, had to be excluded because they so obviously lacked homogeneity. Finally, among consumer goods, groups like household utensils and hollowware, or heating, cooking and plumbing equipment, were combined on the basis of related end use; this involves a measure of heterogeneity which is, however, less pronounced than that involved in most traditional index groups.

The reservations in this appendix regarding unavoidable defects of data and methods imply a need for caution in interpreting the findings of the study. Some sources of error, as shown, are inherent in the material; the possibility of errors in computation also cannot be excluded. On the whole, it would appear inadvisable to draw major conclusions from very small changes in the indices, since the margin of error in such a study may be fairly large. No definitive tests of significance appear possible but, in general, the magnitude of the movement of the indices is so large that statistical errors will probably not affect the over-all picture.

Appendix B

LIST OF COMMODITIES INCLUDED IN GROUP INDICES [1]

Table 8, United States: Unit Value Indices of Exported Producers' Goods

Steel:

- Steel billets, blooms and slabs
- Steel sheet bars and tin-plate bars
- Concrete reinforcement bars
- Steel sheets, galvanized
- Black steel sheets, hot and cold rolled
- Black iron sheets
- Tin-plate, hot dipped and electrolytic
- Rails, 60 pounds and over per yard
- Welded black steel pipe and galvanized steel pipe
- Galvanized wire
- Wire cable and rope, not insulated
- Metal drums and containers, unfilled

Chemicals:

- Sulphuric acid, fuming
- Glycerin
- Acetone
- Cellulose acetate, not plasticized
- Sodium carbonate, calcined or soda ash
- Sodium hydroxide or caustic soda
- Ammonia, anhydrous
- Phenol or carbolic acid
- Sulphur black
- Zinc oxide
- Lithopone
- Carbon black or gas black
- Titanium dioxide and pigments
- Thinners for cellulosic lacquers
- Ammonium sulphate
- Normal superphosphate, 25 per cent or less phosphoric acid
- Copper sulphate or blue vitriol
- Cellulose acetate molding compositions and powder, plasticized

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1/ Commodities listed in the footnotes to the tables are not repeated here.

Table 9, United States: Unit Value Indices of Exported Consumer Goods

Paper and board:
- Newsprint, standard
- Book paper, uncoated
- Wrapping paper, kraft
- Cigarette paper
- Container board, kraft
- Writing paper, except fancy

Cotton fabrics:
- Gray sheeting, not over 40 inches wide
- Gray printcloth yarn fabrics, construction above 36x32 count
- Bleached sheetings, not over 40 inches wide
- Bleached sheetings, over 40 inches wide
- Bleached carded broadcloth
- Bleached printcloth
- Printed printcloth
- Denims
- Chambrays, cheviots and shirtings
- Voiles, organdies, lawns and batistes, combed

Heating, cooking and plumbing equipment:
- Bathtubs, iron and steel
- Lavoratories, sinks and other sanitary articles, pottery
- Gas stoves, ranges, and room and water heaters
- Kerosene cooking stoves

Table 18, United Kingdom: Unit Value Indices of Exported Producers' Goods

Iron and steel:
- Ingots, blooms, billets and slabs
- Bars and rods of steel other than alloy steel: flats, 5 inches and under in width; other, including rounds, etc., under 3 inches
- Angles, shapes etc., other than channels and sheet piling
- Sheets, under 1/8 inches in thickness, galvanized
- Black sheets
- Welded tubes
- Tin-plate
- Steel rails
- Wire, single and stranded, except insulated
- Cable and rope, except insulated
- Barrels and drums, empty

Electrical machinery and equipment:
Lamp bulbs, filament, complete
Batteries, primary, complete
Batteries or accumulators, motor vehicles
Motors and parts
Transformers for lighting, heating and power
Generating sets, driven by Diesel engines

Chemicals:
Acetone
Carbonate of soda incl. soda ash
Caustic soda
Acetate of lead, litharge, red lead
White lead (basic carbonate)
Ammonium nitrate
Ammonium sulphate
Copper sulphate
Tetra ethyl lead
Vinyl resins and other plastic materials
Moulding powders: cellulose acetate, phenol and cresol, urea formeldehyde, others

Table 19, United Kingdom: Unit Value Indices of Exported Consumer Goods

Heating, cooking and plumbing equipment:
Stoves, grates and ranges for domestic cooking, for coal and other solid fuels, for liquid fuel
Gas appliances and parts, cookers, stoves, hot plates, grillers, gas rings and the like
Sanitary ware, of earthenware and of fireclay
Baths of iron or steel, wrought enamelled

UNITED NATIONS
ECONOMIC
AND
SOCIAL COUNCIL

Distr.
GENERAL
E/2456
11 June 1953
ORIGINAL: ENGLISH

Sixteenth session
Item 3 (d)

Dual Distribution

ECONOMIC DEVELOPMENT OF UNDER-DEVELOPED COUNTRIES

Repercussions of Changes in Terms of Trade on the Economies of Countries in Process of Development

Report by the Secretary-General

EXPLANATION OF SYMBOLS

The following symbols have been used throughout the report:

Three dots (...) indicate that data are not available or are not separately reported.

A dash (-) indicates that the amount is nil or negligible.

A blank in a table indicates that the item is not applicable.

A minus sign (-) indicates a deficit or decrease, unless otherwise stated.

A full stop (.) is used to indicate decimals.

A comma (,) is used to distinguish thousands and millions.

A slash (/) indicates a crop year or fiscal year, e.g., 1950/1951.

Use of a hyphen (-) between dates representing years, e.g., 1934-38, normally signifies an annual average for the calendar years involved, including the beginning and end years. "To" between the years indicates the full period, e.g., 1947 to 1949 means 1947 to 1949, inclusive.

References to "dollars" indicate United States dollars, unless otherwise stated.

Details and percentages in tables do not necessarily add to totals, because of rounding.

INTRODUCTION

1. This paper was prepared in response to the resolution 623 (VII) adopted by the General Assembly on 29 December 1952 which inter-alia requests "the Secretary-General to include in the study being prepared in compliance with Economic and Social Council resolution 427 (XIV) an estimate of the financial repercussions which changes in the terms of trade between primary commodities and capital goods and other manufactured articles produce on the national incomes of countries in the process of development, and an analysis of the distribution of those incomes". The study in response to resolution 427 (XIV) of the Council is presented to the sixteenth session of the Council as E/2455, "Relative Prices of Primary Products and Manufactures in International Trade". These two documents should, therefore, be read conjointly. For the purpose of the present report, it was considered that countries in the process of economic development were generally among those exporting primary products.

2. It may be noted, first, that the impact of fluctuations in export prices is quite different from the impact of changes in import prices, both with respect to the sector of the economy immediately affected and to subsequent repercussions. This makes it difficult to analyse the consequences of simultaneous changes in import and export prices and to separate them from the effects of other economic variables, particularly during short periods.

3. In the second place, the effect of changes in foreign trade prices depends not only on the direction, magnitude and duration of such changes but also on the structure and the character of the economy in question. The ultimate effects differ both in nature and in magnitude in accordance with the extent of industrialization in the economy, its degree of diversification, the composition and the relative importance of its foreign trade and its geographical distribution

4. In view of the fact that changes in the terms of trade taking place during a short period of time cannot easily be isolated from the complex of economic forces which act and interact within and upon any country, the quantitative or statistical relation of changes in the terms of trade to observed movements in

such variables as the national product, employment levels and price levels, frequently does not yield an adequate picture of the nature and strength of the causal influences at work. However, a comparative analysis of trends supplemented by non-statistical information often permits a general qualitative evaluation of the inter-relations between economic variables and of their relative contribution to observed developments.

5. Part I of the present paper contains a summary of the conclusions of the analysis, and is followed in part II by a discussion of certain characteristics of movements in the terms of trade and of their primary and secondary effects on the economies of the countries. Part III is concerned with the analysis of observed economic developments in a number of primary producing countries during the period from 1948 to 1952, in the fields of balance of payments, output of goods and services, course of domestic prices, distribution of income, government revenue and investment. This approach has the advantage of permitting a general appraisal of the effects of the operation of certain economic forces upon countries with quite different economies. The illustrations offered in this appraisal were derived from a number of case studies of primary producing countries which were selected to include examples of different stages in development, types of exports, geographical location and currency affiliation as well as of differences in the degree of diversification and in the relative contribution of foreign trade to national product.[1/] In addition to these case studies, use was made of a number of recent reports, particularly those from the United Nations regional economic commissions.

1/ The countries studied are Argentina, Australia, Brazil, Burma, Ceylon, Chile, Egypt, Malaya, Mexico, the Philippines, Southern Rhodesia and Turkey.

Part I

SUMMARY AND CONCLUSIONS

6. The analysis of trends in the international trade of primary producing countries shows striking disparities between the magnitudes of movements in prices and of movements in volume. Both for the primary producing group as a whole and for the majority of individual countries, fluctuations in the value of foreign trade between 1948 and 1952 were due principally to price changes and only to a very much smaller extent to changes in quantity. These trends departed from the pattern prevalent in the past in which the amplitude of fluctuations in quantity exceeded that of fluctuations in price.

7. The general trend of export prices in under-developed countries was slightly downward in 1949 and the early part of 1950. However, during the second half of 1950 and the first half of 1951 an intense upward movement was recorded; this was followed first by a levelling off and then by a decline which lasted throughout the first six months of 1952. The above pattern was most marked in the case of prices of raw materials, which on the whole showed the highest degree of instability both in the upswing after mid-1950 and in the succeeding decline, although the prices of individual commodities exhibited striking disparities as to both trends and amplitude of movement.[2/] In general, food prices showed a much greater degree of stability. Among the prices of foodstuffs, those of cereals appear to have benefited least from the expansion of international demand. For a number of them, the trends were downward during the early part of the period, but rose after 1950. The prices of certain tropical foodstuffs, however, showed much greater variability.

8. With respect to imports, average unit value as well as many individual prices moved slightly downward in 1949 and the first six months of 1950. Although there were differences among commodities and commodity groups,[3/] the general trend was reversed in the second half of 1950. Thereafter import prices rose at a moderate rate throughout 1951 and the first six months of 1952. In a number of primary producing countries which are large importers of cereals and textiles, the trend

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2/ See also E/2455.

in the prices of these groups contributed to diminish the increase in average unit values of imports.

9. For primary producing countries as a whole, the terms of trade improved at a moderate rate in 1949 and the first six months of 1950. In the succeeding twelve-month period the favourable movement was more rapid, but was followed by a setback which by the first half of 1952 had brought the terms of trade for the group down to the level of the first half of 1950.

10. The terms of trade of individual countries reflect the fluctuation of their export and import prices. As may be expected, countries exporting primary raw materials that were in short supply fared significantly better than the average, whereas some cereal exporting countries were among those which showed unfavourable trends in their terms of trade.

11. As was pointed out above, the fluctuations in export prices and terms of trade from 1948-1952 did not lead to changes in the volume of exports of comparable intensity. For primary producing countries as a whole, the quantum of exports varied in the same direction as average export prices but the rate of change was much smaller. Fluctuations in export proceeds paralleled those in unit values of exports throughout the period, increasing until the middle of 1951, and thereafter declining to a level somewhat above that of the first half of 1950.

12. In many countries the rise in export prices in 1950 and 1951 was accompanied by an increase in the profits earned in the export sector. In some countries where export industries are owned by non-residents, the amounts of investment income remitted abroad also tended to grow.

13. Moreover, in many countries the foreign exchange reserves of governments and central banks rose greatly until 1951, only to fall in 1952. In other cases, the rise in the value of exports was followed by outward short-term capital movements, including repayment of short-term borrowing by the authorities. After 1950, the inflow of long-term capital into under-developed countries as a whole increased moderately, although the additional amounts were smaller than the gains from trade.

14. With respect to output, production for export in many countries grew only moderately, even among the countries which benefited most from favourable trends in export prices. The major exceptions were found in countries where the capacity

of the export industries was being expanded or in countries recovering from wartime damage. The low levels of inventories of export commodities in many exporting countries also contributed to the inelasticity of the volume of exports from 1950 to 1952.

15. In almost all countries, the output of goods and services grew faster in the non-export sectors. The magnitude of increases in production (relative to gains arising from the improvement in the terms of trade) was greater in countries where manufacturing industries were more developed and diversified although the contribution of manufacturing production to the rise in the gross national product was sometimes limited by the inadequacy of resources or the lack of manpower due to the achievement of full employment. The development of manufacturing industries further facilitated the maintenance of employment and production during periods of adverse movements in the terms of trade.

16. Other instances of relatively large increases in production for domestic use were found in countries where both the levels of economic activity and the capacity of major branches - including in certain cases agriculture and transport - were being expanded by public or private investment programmes.

17. In some countries - particularly among those in which the industrial base is narrow and undiversified - the rise in commercial activity was one of the major factors in the growth of the total geographical output of goods and services during periods of rising terms of trade, as well as in the decline during adverse periods.

18. Fluctuations in external prices clearly influenced the course of domestic prices and the distribution of incomes. However, actual trends in each country were also determined by many other variables, and external prices were not always the decisive factor.

19. In most of the countries reviewed domestic prices rose during the period 1948 to 1951. In many instances the trend of wholesale prices was perhaps closer to fluctuations in import prices than to those in export prices, except in some countries in which foreign trade is small compared with the geographic product or in food exporting countries whose local markets for export products are relatively large.

20. In many of the countries importing cereals and textiles, relatively stable trends in the prices of these commodities contributed to diminish inflationary pressures. In other instances, the increases in the production of domestic manufactures or foodstuffs also acted in the same direction.

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21. Employment increased after 1948 in the majority of the countries for which information is available. The rise in employment was related to the growth in economic activity resulting from the improvement in the terms of trade and other reasons.

22. In many of the countries, aggregate real wages increased, although at a lower and steadier rate than other incomes. Real wage rates were stable or rising, but less so than employment. In some instances, real wage rates continued stable or rising in 1952, in spite of the reversal of the terms of trade, but in these instances employment tended to level off.

23. Public revenue increased, in real as well as in money terms, throughout the years 1948 to 1952, following the rise in the value of exports and in the gross geographical product. However, the rise in revenue initially lagged behind the increase in the total product, but in 1952 upward trends in tax revenue continued, in spite of the fall in the value of exports and in the gross product.

24. Capital formation increased at a faster rate than geographical product in a number of countries. The inflow of foreign capital was comparatively low, and in some instances it was more than offset by the outward flow of short-term investment and the accumulation of foreign exchange reserves; in extreme cases, these outward movements equalled or exceeded total capital formation.

25. The existence of long-term investment programmes, public or private, in a number of countries permitted them to channel a significant fraction of the additional savings accompanying the growth of incomes into productive investment, thus contributing further to the expansion of the level of production and to the improvement of the standard of living.

Part II

NATURE AND CHARACTERISTICS OF CHANGES IN THE TERMS OF TRADE

26. The sections which follow in part II of this report are concerned with certain theoretical features of changes in the terms of trade. However, the discussion is not intended to present an exhaustive review of the questions involved, but rather to show, in a brief and preliminary manner, the essential characteristics of changes in export and import prices and certain causal relations between the terms of trade and other economic factors, with a view to facilitating the interpretation of observed trends in primary producing countries, discussed in part III of this paper. Owing to the complexity of the causal influences, only the more essential features are discussed here; an analysis such as this must of necessity underplay the role of autonomous factors and other variables not closely related to changes in external prices, although their practical importance may be considerable. More elaborate treatment is beyond the limits of this paper and for this reason was not attempted here.

The Role of Foreign Trade in the Economies of Primary Producing Countries

27. The terms of trade constitute only one aspect of foreign trade relationships.[1/] The influence of changes in the terms of trade on the economies of primary producing countries can therefore be analysed only if the more general effects of foreign trade on these countries are taken into account.

28. Statistically considered, exports and imports represent a larger share of the gross geographical product of many primary producing countries than of most industrialized countries. Foreign trade tends to be most important among less developed countries, especially if only the exchange sectors of their economies are taken into account, that is, exclusive of subsistence agriculture sector.

1/ In this paper, the expression "terms of trade" denotes barter terms of trade and is statistically equivalent to the ratio of the export price index to the import price index, stated as a percentage figure.

29. In a number of countries, uneven development in the past led to the concentration of capital resources and skills on industries which met the demand for foodstuffs and raw materials from the industrialized countries, while other industries not so closely related to world markets remained relatively undeveloped. Thus, wide differences have appeared with respect to amounts of capital employed, organization of production and processing, size of enterprises, productivity and over-all efficiency between the export sector, on the one hand and domestic economic activities, on the other. This trend has enhanced the significance of the export sector in relation to the rest of the economy and has made countries particularly sensitive to vicissitudes in the export trade and to changes in the availability of imports.

30. In a few countries that are in the process of development, the substitution of domestic for imported goods has reduced the statistical ratio of imports to geographical product. In most of these countries, however, the degree of dependence upon imports has remained important and it may even have increased because of the consequent expansion in their demand for the raw materials, fuels and capital goods essential to maintain - or raise - the level of industrial production. Some of these countries, moreover, also depend upon imports for certain of their basic foodstuffs. Hence, in the absence of import controls any substantial contraction in export earnings may be felt in the supply of raw materials or fuels required for the normal operation of manufacturing industries.

31. Another influence of foreign trade on under-developed countries results from its lack of stability, evidenced by the magnitude and frequency of the fluctuations in both the volume of trade and the prices of commodities. Consequently, under-developed countries specializing in raw material exports often exhibit, at least in their commercial export sectors, greater instability than is normally found in more industrialized countries.

32. Moreover, the prices of the exports and imports of under-developed countries - and sometimes the volume of exports as well - are determined in foreign markets by forces almost entirely outside their control. In the case of exporters of raw materials, in general, the demand for their products depends chiefly upon the current level of industrial production and income in more advanced countries and on expectations concerning the future of production and

prices, and, in the case of exporters of foodstuffs, also upon the standard of living of the industrial population. The relatively small individual participation of under-developed primary producing countries in the total volume of world trade in industrial goods tends to minimize the effects of changes in domestic demand upon the price level of their import goods. Although a few primary producing countries may sometimes influence the nature, volume and prices of their exports by appropriate government policies, the results for any individual country attempting such a course of action are apt to be disappointing: in the first place, the possibilities of substituting goods from other areas or other products including competing synthetic products, tend to limit the effect of output restrictions on the world price of the commodities concerned; in the second place, unilateral attempts to expand the volume of exports merely tend to reduce prices and, because of the inelasticity of the demand for raw materials and foodstuffs, to limit the increase in proceeds accruing to the exporting country.[2/] Furthermore, internal markets for the major exports of under-developed countries are usually too small to permit a significant shift away from foreign markets, though there are some isolated exceptions, including foodstuffs - particularly certain basic foodstuffs, the supply of which is inelastic.[3/]

33. To sum up, foreign trade influences are multiple and interrelated. Changes in the relative prices of imports and exports are only one of the ways in which they become manifest, but the effects of such changes on economic activity in under-developed countries may be widespread and, in their cumulative results over a period of time, sometimes decisive.

2/ See United Nations, Economic Survey of Latin America, 1949, chapter II, (Sales No. 1951.II.G.1).

3/ However, market shifts are likely to be more frequent for some of the minor exports of both primary and manufactured goods. In such cases, however, producers may improve their domestic outlets during periods of expansion only to find that increases in the cost of production incident to the general price rise at home have weakened their competitive position in foreign markets. In extreme cases deterioration in cost-price relationship is likely to lead to a reduction in output.

34. Primary producing countries are, however, often capable of increasing the contribution that foreign trade makes to their economic development. First, these countries retain substantial control over the nature and volume of their imports and may take steps to adjust the composition of their imports in accordance with the needs of their domestic economies and the resources at their disposal. Second, governments may institute measures to increase the proportion of the value of exports retained within their economies and to maximize the internal flow of incomes arising out of a given volume of exports, guiding the use of the additional income so as to further the process of economic development.

Character of Changes in the Terms of Trade

35. In the present context four aspects of any movement in the terms of trade may be mentioned: its locus or point of incidence, its direction, its intensity and its duration. Each of these will be examined briefly in this section with a view to indicating the nature of the economic effects it is likely to have.

The locus or point of incidence

36. Since the terms of trade represent a ratio between two price levels, a change may be occasioned by a movement of either of the variables separately or of both simultaneously. The effects of such variation in the terms of trade, however, are likely to differ according to whether the change occurs in export prices or in import prices.

A rise in export prices results in an increase in money income realized in the export sector from a given quantity of exports. At the same time, it tends to induce an increase in the volume of production in export industries. It usually accrues initially to a relatively small fraction of the population, even in cases where export commodities are produced by a large number of small producers.

37. Import prices generally affect costs in the economy as a whole; hence their influence is usually more widespread than that of export prices. Producers are affected to the extent that they use imported equipment, raw materials and

fuels, while consumers are affected to the extent that imported goods enter into consumption. Hence, an improvement in the terms of trade resulting from a fall in import prices initially affects a larger group than when the improvement results from a rise in export prices.

38. The succeeding sequence of events is also likely to be different. A rise in export prices tends to stimulate the output of export commodities directly and also tends to influence the output of domestic industries owing to the increase in demand from the recipients of the incomes initially accruing to the export sector. A fall in import prices tends to lower the general price level or to increase importers' margins, or both, and may be followed by a rise in the volume of imports, or it may facilitate an increase in the production of industries using imported raw materials, fuel and equipment. The process by which these two sets of causal influences affect the economy of a primary producing country as a whole are discussed in more detail in the next section of this report.

Direction of the change

39. There are a number of ways in which changes in the terms of trade may materialize. A rise in the terms of trade may take place when both export prices and import prices rise, the former increasing more than the latter, or it may take place because of rising export prices and falling import prices, or it may occur when both export prices and import prices fall, the latter falling more than the former. This last type occurs least frequently in primary producing countries. Conversely, a fall in the terms of trade results from changes corresponding to those enumerated above.

40. In the past, owing to the fact that forces generated in the more industrialized countries have exercised a preponderant influence over price trends in world markets, the unit values of imports and exports of primary producing countries have tended to vary in the same direction, higher export prices being accompanied by higher import prices and vice versa. Movements of import and export prices in opposite directions are much less frequent, and are sometimes associated with changes in price trends such as those that occur at the turning points of a trade cycle.

41. During periods of rising prices, higher money incomes accruing to the export sector are offset, in whole or in part, by the higher cost of imports and, during a period of falling prices, lower incomes tend to be counterbalanced by falling import costs. Thus, in broad terms, when the prices of imports and exports move in the same direction they tend to cancel each other's effect on the real product of the exporting country. The inflationary and deflationary influences, however, tend to act in the same direction and are therefore likely to aggravate the instability of the economy.

Intensity and duration of the change

42. The effect of trade fluctuations in any country clearly varies with the amplitude of price fluctuations in the particular commodities in which it deals. Experience has shown that producers concentrating on such industrial raw materials as cotton, copra and rubber, and such non-staple foodstuffs as pepper and cocoa, are subject to much greater variations in price - both year-to-year and cyclical - than producers of cereals, such foodstuffs as tea and bananas, and many minerals.[4/]

4/ See United Nations, Instability in Export Markets of Under-developed Countries (Sales No.: 1952.II.A.1), chapter 2.

43. The effects of changes in the terms of trade on the economy are a function of their intensity and duration.2/ The effects of a small fluctuation - or even one of greater intensity but short duration - may be dispersed in many corners of the economy and cushioned by such items as financial reserves, commercial inventories or consumer durables. Fluctuations of greater severity or longer duration may lead to cumulative effects and may even produce structural changes (for example, in the importance of the export sector of the economy) or may greatly affect the financial strength of the government.

44. First, the nature and strength of compensatory forces vary greatly, according to the duration of movements in the terms of trade. Short-term changes are particularly susceptible to countervailing influences, and many of their effects on the economy become apparent only after an interval. In any event, a change in the terms of trade in due course influences the level of economic activity. If a reversal then takes place in the direction of the movement, this will force (again after an interval) a revision of expectations and investment decisions. An alternation of favourable and adverse changes in terms of trade of short duration and great intensity, such as that experienced in the post-war period, tends therefore to delay or prevent the emergence of

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2/ According to the study cited above, average fluctuations in the prices of primary commodities during the period 1901 to 1951 amounted to about 14 per cent from year to year. But primary producers' "vulnerability to price fluctuations was greatly increased by the fact that year-to-year movements tended to be in the same direction for two to three years at a time" (page 5), so that cyclical price declines and rises each averaged about 27 percentage points - and as high as 40 points for individual commodities. Secular changes (as measured by a seven-year moving average) occurred at a slower annual rate, of course, but the cumulative long-trend movements resulted in total changes which "were greater than the normal total cyclical amplitude". Furthermore, according to another United Nations study, Relative Prices of Exports and Imports of Under-developed Countries (Sales No.: 1949.II.B.3), page 23, "average prices of primary commodities relative to manufactured goods have been declining over a period of more than half a century. By 1938, the relative prices of primary goods had deteriorated by about 50 points, or one-third, since the beginning of the period [the eighteen-seventies] and by about 40 points, somewhat less than 30 per cent, since 1913". By 1947, the 1929 position had almost been regained, but most indices remained one sixth or one seventh below the 1913 level.

secondary effects on the economy. At the same time, however, it aggravates the difficulties in the way of economic development, for the heightened uncertainty concerning future trends, and the repercussions of successive disappointments on later decisions to spend or invest, may in many cases slow down the rate of investment in fixed capital.

45. The significance of cyclical fluctuations lies in their cumulative impact on the structure of the economy as well as in the immediate effects of the year-to-year movements.[6/] A continued improvement in the terms of trade, with price increases lasting more than a very short period - and expected to continue - tends to weaken the effect of the lags and the offsetting influences, so that the economy tends to react to the dynamic impulse of subsequent price rises with increasing momentum. Optimistic expectations first cause an increase in production and then give rise to decisions to invest, while investment programmes are facilitated in turn by a rise in profits and possibly by an inflow of foreign capital. Within the economy, the completion of each investment results in an increased flow of goods.

46. It should be noted, however, that the lag between price increases and new investment is likely to be longer for investments in new industries for which technical background may be lacking, uncertainty surrounding the size of market greater, and competitive prospects less definite. Hence, during periods in which the terms of trade are favourable, private savings are likely to be channelled first into existing industries and activities, particularly export industries, real estate, and trade, and therefore to contribute to the diversification of the economy to only a moderate extent. These obstacles to the diversification of production become easier to overcome the longer the duration of the favourable movement in terms of trade. In the past, however, the trend in the terms of trade has often been reversed before this process could reach significant proportions. In such case, the over-all result of the cycle would be neutral, so far as correcting the imbalance

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6/ For a study of the consequences of cyclical changes in the terms of trade on the economies of under-developed countries see, for example, United Nations, Economic Survey of Latin America, 1949.

existing in the economic structure of the country was concerned. Furthermore, postponement of investment programmes has more serious consequences during cyclical recessions than during short-term movements, and abandonment of the programmes would lead to a waste of resources.

47. Longer cyclical movements in the terms of trade give broader scope to the play of inflationary effects of rising prices on the economy of primary producing countries while subsequent recessions magnify the deflationary effects of falling prices. In the absence of compensatory or unrelated variables,[7] primary producing countries are likely to suffer from both the recessions and the recoveries of industrial countries, without obtaining the full measure of real income gains that attend recovery in industrial economies.

Primary and Secondary Effects[8]

48. The basic primary effect of a change in the terms of trade is to alter the volume of goods and services available to a country from abroad without

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7/ For example, a public investment programme of a compensatory character or large-scale private investment related to the development of natural resources.

8/ The following statistical concepts are used throughout this paper:

(a) Gains or losses from changes in the terms of trade (or more briefly gains or losses from trade) are defined as the product of the quantum of exports in any given year (at prices of the base year, 1948) and the changes in the terms of trade since 1948 $[G = Q_e (t-1)]$.

(b) The capacity to import created by exports at 1948 prices (or more briefly, the capacity to import) is the quantum of imports at 1948 prices which can be purchased by the exports of any given year (C = value of exports divided by index of price of imports). Gains and losses in the terms of trade constitute one measure of the addition to (or the deduction from) the capacity to import due to changes in the terms of trade. It is related statistically to the total capacity to import by the formula, $C = Q_e + G$.

(c) Gross geographical output (O) is the sum of the output of all goods and services (at 1948 prices) produced in any given year within the geographical boundaries of a given country.

(d) Gross geographical product (P) is the sum of gross geographical output and unilateral transfers of purchasing power between countries arising from changes in the prices of exports and imports. An approximate measure of the gross geographical product is given by the formula, $P = O + G$. Viewed in this light, gross geographical product is an approximate measure of the sum of real incomes earned within the geographical boundaries of the country.

corresponding alteration in the expenditure of domestic effort and resources. As indicated above, the additional volume of goods and services available to the exporting country, that is, the increase in the gross geographical product, is measured statistically by gains from trade. When export prices fall relative to import prices, the loss from trade and the decrease in the gross geographical product are measured in a corresponding manner. A change in the terms of trade thus gives rise to a change in the country's capacity to import and its gross geographical product.

49. The actual volume of trade is a function not only of the initial changes in the capacity to import but also of a number of other variables, some unrelated, some also affected by the terms of trade. Among the latter are the quantum of exports, the volume of payments for financial and other services, the direction and magnitudes of capital movements and the volume of foreign exchange reserves. Furthermore, the composition of foreign trade, and the manner in which these variables react to it, determine in their turn the subsequent movements and ultimate level of the terms of trade themselves.

50. The influence of fluctuations in the terms of trade, however, goes far beyond its effects on the capacity to import; initial changes in real incomes tend to modify aggregate demand and hence initiate a series of effects on the output of goods and services for home use and on the volume of imports. Furthermore, in the export sector the output normally varies in response to price fluctuations. Output and price jointly determine export proceeds and strongly influence the level of incomes.

51. The volume and composition of imports in turn both reflect and react on the level and structure of production for home use. Furthermore, export and import prices are constituent elements of the general price level and in many under-developed countries are among its major components. Thus, any changes in such prices bring about movements in the general price level, resulting first from the impact of the changes themselves and then from secondary effects of movements induced in the domestic economy.

52. In operation the consequences for the balance of payments, output and price level complement one another. Each reacts on the others and jointly with unrelated variables to bring about a new level of economic activity, employment and income, and to change the distribution of this income among the various

factors of production and hence between consumption and investment. The mechanism through which these interactions take place merits slightly more detailed description.

53. Fluctuations in export prices give rise initially to changes in monetary incomes accruing to firms active in producing, processing and trading export commodities. These income changes are usually followed by fluctuations in demand schedules. The effects on other prices vary according to the circumstances, depending, in particular, on entrepreneurial expectations as to the future course of prices, on the degree of competition among buyers and sellers, and on the elasticity of the supply of commodities and other factors of production.

54. When dealers in any market operate in competition with one another, changes in prices are likely to be passed on promptly to the producers from whom they buy. When comparatively few dealers face a large number of unorganized producers, price increases tend to be retained longer by dealers, and price decreases tend to be passed on more promptly.

55. A similar pattern obtains when the export trade is conducted by the producing enterprises themselves. Where a few firms deal with a large number of unorganized suppliers and workers, price rises in the international market tend to be retained by those firms.

56. In the normal case, a rise in export prices should increase profits in the export sector and thus induce producers in that sector to enlarge their supplies. The response of the producers depends, among other things, on the intensity and duration of the price movement, discussed above, the nature of the commodities involved, the structure of the industries, the capacity of the industries and of ancillary installations, and the tax and foreign exchange policies of the countries. Furthermore, inducements to export industries derive from a rise in unit prices of export products relative to unit costs; hence the trends in import prices and domestic prices also influence the response of those industries. In particular, import prices affect them in a direct manner to the extent that the firms use imported equipment and intermediate goods and indirectly to the extent to which import prices cause the general level of prices and wages to vary. Since the latter factor operates only after a lag, changes in export prices tend to be the predominant influence, at least initially.

57. It is to be expected that initial increases in the output of export commodities will be moderate unless there was originally a substantial amount of idle capacity that could speedily be put into operation. Crop production tends to change only slowly and the same is true, perhaps to a greater degree, of non-annual crops and forest products; in mineral exporting countries production plans of mines may not be easy to adjust. To the extent that production for export rises, it tends to increase still further both the proceeds of exports and the incomes in the export sector. The increase in the demand for goods and services in that sector reinforces the influence of the initial rise in export prices on other industries, but if trends in international markets force a downward revision of expectations before the increase in output has fully materialized, then the effects on domestic prices and wages are likely to be smaller.

58. The influence of a rise in export prices on the output of goods and services in domestic industries differs both in timing and in magnitude from its influence on production for export, and is primarily a function of the distribution of additional incomes earned in the export sector, the portion of those incomes which the original recipients transfer to the flow of domestic payments, the spending habits of the population and the capacity of the economy to adjust itself to changes in demand. Gains accruing to export firms may be partly transferred abroad in the form of remittances of profits and interest or in payment for imports necessary for the production of exports. Part of the gain is required for freight and insurance payments; another part may be retained as foreign exchange assets.

59. Nevertheless, the recipients of additional income probably increase their domestic expenditures and - to the extent that expenditures are directed to the purchase of domestically produced goods and services - thus stimulate output in other industries, after an interval. Because of its cumulative effect, the ultimate increase in output may be several times larger than the primary gains in trade. That part of the additional expenditure which is directed towards the purchase of imported goods and services similarly induces an expansion of production and increases incomes in the countries supplying such imports,[2/] in this

2/ To the extent that these incomes are used to purchase additional exports of the primary producing country, the latter receives a secondary stimulus comparable in nature, but probably not in timing or magnitude, with the stimulus provided by domestic purchases of the beneficiaries of the rise in terms of trade.

case, the effects in the primary producing country are limited to additional activity among importers, merchants and inland transport firms. This tends to be the case when most of the gains from trade accrue to a small number of individuals, either because of concentration of production in the export sector or for such organizational reasons as those mentioned earlier in this section.

60. The increase in the demand for consumer goods is greater when low income groups receive a larger share of the additional income. When a larger proportion of the latter accrues to high income groups, the demand for capital goods and fixed assets increases correspondingly, at least to the extent that export proceeds are not transferred abroad.

61. In general, when domestic agriculture and industry are undeveloped and undiversified, the response of these sectors to additional demand is likely to be slower and smaller, partly because of limited technical possibilities for increasing production rapidly and partly because of the more limited response of producers to economic inducements in the short run. Conversely, a more developed and diversified industrial base permits a larger and more rapid increase in production.

62. On the other hand, increase in the output in sectors producing for domestic use is limited by the capacity of industries and the amount of idle resources that can be put into productive use, and is also dependent on the elasticity of the supply of labour.

63. However, while the processes described above are taking place, prices of imports do not remain stable. In the more frequent case, an upward trend in the export price is accompanied by parallel trends in the prices of imports. A general rise in the import prices tends to increase the domestic price level (or to reinforce an inflationary increase due to other causes). There may be a tendency to substitute domestic for foreign commodities, depending upon the structure of imports and the nature of domestic production, as well as the relative level of domestic prices. Should prices of foodstuffs and finished consumers' goods increase relative to those of raw materials, this type of substitution might have a favourable effect on the output of domestic industries. In any case it is likely that imports of such categories as are not produced in the country (particularly durables, and high-quality or specialised goods) will rise because of the increase in aggregate incomes and in demand. A rise in prices of capital goods, raw materials and fuels may force a reduction on

imports of producers' goods which would adversely affect the output of local manufacturing industries and would ultimately result in an increase in the imports of finished consumer goods.

64. On the other hand, a fall in import prices gives rise to opposite effects to those of a rise in import prices. Lower prices for equipment and raw materials facilitate an increase in the output of domestically produced goods while lower prices of similar imported commodities may induce a trend towards substitution of imported for domestic goods.[10/]

65. The increase in economic activity following a rise in the price of exports is also reflected in a favourable rise in the demand for labour. Employment increases unless the economy has already substantially approximated a condition of full employment. This is not usually the case in the less developed primary producing countries, in which a relatively large proportion of the population is engaged in low-productivity occupations, including subsistence agriculture. In these conditions, an increase in the demand for labour in urban sectors and in commercial agriculture induces a shift in employment to occupations with higher productivity.

66. For the economy as a whole, these transfers in employment lead to an improvement in the overall productivity of labour, tending to offset the unfavourable effects of a relative increase in the proportion of untrained workers in the more productive branches of activity.[11/] Further expansion in economic activity is facilitated, inter alia first, by the supply of relatively cheap labour, second, by consumption expenditures of the extra wage earners (including their initial expenditures for semi-durable goods) and third by investment expenditures to meet the increased demand for housing and social services.

10/ It may be noted, however, that in both alternatives (that is rising or falling import prices) the government can often take steps to prevent or limit unfavourable effects of changes in import prices on the output of domestic industries, for example, through custom duties or controls over the volume and composition of imports, directed to facilitate the supply of raw materials and equipment, and to discourage excessive competition from imported goods.

11/ In Argentina, Australia, Brazil and Southern Rhodesia, migration from abroad played a somewhat similar role to such internal transfers of population, and in some of these countries both types of population movement occurred simultaneously.

67. The course of wage rates in the market economy depends on several factors, many of them unrelated to external prices. On the one hand, the high degree of elasticity in the supply of labour in many of the less developed countries sets a limit to the magnitude of any wage increases, although these usually take place, particularly in industries most favoured by the current prosperity. Pressure for wage increases is greater if prices of basic consumer goods are rising. Finally, the extent of labour organization influences the bargaining position of the wage earning sector and hence, its share of the additional income.

68. Subsequent unfavourable developments in the market economy lead to divergent effects, depending upon the duration of the preceding rise. If the latter was of short duration, a decline in employment in the market economy may in many of the less developed countries result in the return of redundant labour to the subsistence economy and in an increase in disguised unemployment. But if the duration of the rise permitted migrants to become adjusted to relatively higher urban standards of living - and consequently reluctant to resume their former scale - open urban unemployment, which greatly adds to deflationary forces at work, may arise. The former sequence of events seems to have taken place in Northern Rhodesia following the completion of the first phase of mining investment in the early nineteen-thirties, while the second took place to some extent in Bolivia during the depression of 1929 to 1932.

69. The magnitude of inflationary or deflationary influences of changes in external prices - like the influences of these changes on the volume of production - depends on the ratio of exports or imports in the geographical product of the country, the diversification and development of the economy as a whole and the elasticity of the supply of factors of production. If, for example, foreign trade prices rise, the consequences on the general price level tend to be greater when imports and exports are a larger fraction of the geographical product of the country. Conversely, to the extent that additional demand for goods during periods of rising prices can be met by increases in production, such gains in export and import prices become diffused throughout the economy and their influence on the general price level is probably weakened. But as full utilization of productive capacity and labour is approached, a rise in costs and prices probably takes place, together with a diversion of demand to imported commodities; in this case the larger proportion of imported goods in consumption and investment also increases the influence of external prices on the general price level.

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70. On the other hand, in many of the less developed countries, where the importance of the exchange economy is small because of the isolation of the export sector and the magnitude of subsistence agriculture, vast sectors of the economy remain little affected by the consequences of price fluctuations. Thus these countries escape serious inflation and deflation at the expense of under employment of their human and natural resources.

71. It may also be noted that the magnitude of the inflationary or deflationary forces is directly related to the amplitude of the change in external prices and to the duration of the movement. Serious inflation following a rise in export prices is compatible with a deterioration in the terms of trade, for import prices may rise faster than export prices. However, to the extent that the terms of trade actually move in favour of a given country, the pace of the inflationary process may be retarded by the additional output on the part of domestic industry and by relatively cheap imports, especially if basic consumer goods form a significant part of such imports. It may also be retarded by the existence of inventories of lower priced goods and by price regulation, rationing and so on, although these influences tend to weaken with the passage of time.

72. If in a later period export prices fall when import prices are still rising, either inflationary or deflationary tendencies may predominate. However, when the export sector is relatively isolated from the rest of the economy, inflationary tendencies may initially prevail. On the other hand, if there is a severe drop in employment and production in the export sector, it may lead to serious deflationary effects in the other economic sectors unless compensatory fiscal and monetary policies are pursued.

73. A fall in both export and import prices is generally likely to be deflationary and to lead to a sequence of events opposite to that flowing from a rise in foreign trade prices. The transition from rising to falling prices, however, may be marked by an aggravation of domestic inflationary pressures.

74. The foregoing sequence is modified when domestic markets for export goods are significant, especially in the case of food exporting countries. Here, a rise in the prices of exportable foodstuffs, may, barring governmental action to control the rise of domestic prices, augment real incomes in the export sector by transfer from domestic as well as from foreign consumers and may therefore generate more severe pressures on real wages and domestic prices in the urban sectors.

If this is followed by a decline in export prices when other prices are rising, inflationary pressures may then abate to the extent that domestic food prices reflect the drop in export prices. But if producers and retailers succeed in maintaining the domestic level, the internal situation tends to remain as above.

75. Because of the increasing importance of governmental action in the economic life of under-developed countries, particularly in regard to economic development, special interest attaches to fiscal policies in relation to trade fluctuations and to the consequences of price fluctuations on government revenue and expenditure.

76. The initial effect of the rise in export prices is felt principally through taxes on the commodities affected. Where export taxes exist, and especially where tax rates are raised during a period of rising export prices, the increased value of exports of course raises government revenues. A fundamental factor is the structure of the tax system. A few of the countries specializing in exports of primary products are still heavily dependent upon export taxes. Others - among them Australia, Chile and Southern Rhodesia - derive part of their revenue from taxes on sales of export products, and incomes of exporters or, in some instances from foreign exchange profits arising out of differential exchange rates. Still others operate export monopolies or directly control export trade in other ways. Almost all the governments depend on revenue from customs, though to a varying degree. In the last analysis, the fiscal significance of export fluctuations extends throughout the entire national economy, in that these fluctuations influence the yield of income taxes, excises and other levies, including duties on imports made possible by exports.[12/]

77. However, indirect consequences of the rise in export prices on public finances are likely to offset much of the initial improvements in revenue. For example, initial gains in tax revenues and foreign exchange resources may lead to extensive government expenditures on the assumption that the gains are likely to continue. This would increase the cost of government operations and, to the extent that expenditures anticipate or exceed the rise in revenue, budgetary surpluses would be reduced, or deficits increased, thus adding to inflationary pressures. Under these circumstances, it is not unlikely that inflation would add more to government costs than to government revenues.

12/ It is estimated that in Venezuela, to take a striking case, exports of petroleum account, directly and indirectly, for about three-quarters of the budget revenue, while in Chile, copper similarly accounts for one-third of the total revenue (United Nations, Measures for the Economic Development of Under Developed Countries (Sales No.: 1951. II. B.2), Page 71.

78. The initial effects of a rise in import prices on custom revenues depend on the character of the duties and the elasticity of demand. If demand is inelastic, there would be a moderate addition to custom revenues if the duties were specific, but the addition to custom revenues would probably be substantial if there were ad valorem taxes.

79. The dangers of domestic inflation arise in the case of increasing import prices as with rising export prices. If inflation materializes, it affects the costs of government operations, as in the case of rising export prices. This problem is particularly serious if the affected goods are important in the cost of living, for the government may then become involved in expensive subsidies. If the rise in import prices affects the cost of imported capital goods, the danger to development programmes is obvious.

80. If the inflationary sequence mentioned above becomes pronounced, and export prices level off or fall following a period of rising trends, the problem of financing government operations becomes more severe, owing to the drop in revenues in the face of rising costs. These developments are of particularly grave import when expenditures include long-term programmes for economic development. Unless the government is able to develop sources of additional revenue or enter upon deficit spending, the completion of the development projects is seriously delayed.

Part III

CHANGES IN THE TERMS OF TRADE OF PRIMARY PRODUCING COUNTRIES FROM 1948 TO 1952, AND THEIR EFFECTS ON ECONOMIC DEVELOPMENT

81. The following sections are concerned with the impact of recent changes in terms of trade on the economies of certain primary producing countries. The analysis follows the effects of this impact on the balance of payments, the output of goods and services, the price system, the distribution of incomes, and public revenues and expenditures.

82. The period selected for analysis, the years 1948 to 1952, has an obvious bearing on the results. With respect to exports of primary products, the period was marked by the recurrence of extensive fluctuations in international demand accompanied by wide price swings affecting many primary products. Import prices exhibited less marked fluctuations as a whole, although variations recorded for smaller homogeneous groups of manufactures were substantial.

83. The present analysis pays more attention to influences which are more conspicuous in the short run. It is believed that this approach is justified by the nature and duration of price and quantum movements in foreign trade during this period. Nevertheless, these short-term relations do not exhaust the influence of terms of trade on the economy, and hence longer term effects discussed in general in part II should also be borne in mind.[1/]

84. It is clear that changes in terms of trade in a given period are only one of the variables bearing upon the decisions of producers, consumers and public authorities in any country. Foreign trade itself brings different forces to bear, among them the state of world markets for given commodities, geographic shifts in supply and demand, the situation in capital markets and other conditions. Past movements in terms of trade are themselves also a casual influence in so far as their impact is usually transmitted to the economy with lags of varying duration. Many other forces not directly

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1/ In addition, it may be noted that the statistical magnitudes vary with the base year chosen. In this paper, the year 1948 was adopted as the base year since in many countries - though by no means in all - it marked the end of the period of post-war reconversion and restocking.

78. The initial effects of a rise in import prices on custom revenues depend on the character of the duties and the elasticity of demand. If demand is inelastic, there would be a moderate addition to custom revenues if the duties were specific, but the addition to custom revenues would probably be substantial if there were ad valorem taxes.

79. The dangers of domestic inflation arise in the case of increasing import prices as with rising export prices. If inflation materializes, it affects the costs of government operations, as in the case of rising export prices. This problem is particularly serious if the affected goods are important in the cost of living, for the government may then become involved in expensive subsidies. If the rise in import prices affects the cost of imported capital goods, the danger to development programmes is obvious.

80. If the inflationary sequence mentioned above becomes pronounced, and export prices level off or fall following a period of rising trends, the problem of financing government operations becomes more severe, owing to the drop in revenues in the face of rising costs. These developments are of particularly grave import when expenditures include long-term programmes for economic development. Unless the government is able to develop sources of additional revenue or enter upon deficit spending, the completion of the development projects is seriously delayed.

Part III

CHANGES IN THE TERMS OF TRADE OF PRIMARY PRODUCING COUNTRIES FROM 1948 TO 1952, AND THEIR EFFECTS ON ECONOMIC DEVELOPMENT

81. The following sections are concerned with the impact of recent changes in terms of trade on the economies of certain primary producing countries. The analysis follows the effects of this impact on the balance of payments, the output of goods and services, the price system, the distribution of incomes, and public revenues and expenditures.

82. The period selected for analysis, the years 1948 to 1952, has an obvious bearing on the results. With respect to exports of primary products, the period was marked by the recurrence of extensive fluctuations in international demand accompanied by wide price swings affecting many primary products. Import prices exhibited less marked fluctuations as a whole, although variations recorded for smaller homogeneous groups of manufactures were substantial.

83. The present analysis pays more attention to influences which are more conspicuous in the short run. It is believed that this approach is justified by the nature and duration of price and quantum movements in foreign trade during this period. Nevertheless, these short-term relations do not exhaust the influence of terms of trade on the economy, and hence longer term effects discussed in general in part II should also be borne in mind.[1/]

84. It is clear that changes in terms of trade in a given period are only one of the variables bearing upon the decisions of producers, consumers and public authorities in any country. Foreign trade itself brings different forces to bear, among them the state of world markets for given commodities, geographic shifts in supply and demand, the situation in capital markets and other conditions. Past movements in terms of trade are themselves also a casual influence in so far as their impact is usually transmitted to the economy with lags of varying duration. Many other forces not directly

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1/ In addition, it may be noted that the statistical magnitudes vary with the base year chosen. In this paper, the year 1948 was adopted as the base year since in many countries - though by no means in all - it marked the end of the period of post-war reconversion and restocking.

related to foreign economic relations are likewise active in influencing economic trends. Hence, this paper does not attempt an exhaustive quantitative analysis of the consequences of changes in the terms of trade, but rather a general evaluation of the joint influence of movements in the terms of trade and of other variables in a number of primary producing countries.

Characteristics of Movements in Terms of Trade during the Period

85. The terms of trade turned steadily in favour of primary producing countries as a whole in 1949 and the first half of 1950, owing to the fact that a moderate decline in the index of unit value of exports was more than offset by a larger drop in the unit value of their imports. As shown in table 1, during the first six months of 1950, the composite index of the terms of trade was 110 (1948=100). From the second half of 1950, the intensity of the changes became greater. The terms of trade index rose in the first half of 1951 to a level of 128, but during the succeeding periods receded to a point practically identical with that of early 1950. The unit value of imports into primary producing countries rose steadily during much of this interval, though the rate of increase slackened appreciably in 1952. The unit value of exports, however, recorded an increase of nearly 35 per cent, between July 1950 and June 1951, only to lose nearly half the gain during the following twelve months.

86. Changes in the terms of trade of individual primary producing countries, reproduced in table 2, show many deviations resulting from differences in the nature and composition of their exports and imports, in the geographical pattern of their foreign trade and in the character of their trade relations, and also from statistical discrepancies in coverage, weighting systems and base periods. Indices of export and import unit values were also affected by changes in the international value of the monetary units.

87. Wide variations in export unit values are recorded among most of the exporters of raw materials thought at one time to be in short supply, such as cotton, fats and oils, hides, certain non-ferrous metals, rubber and wool, and also in the case of coffee exporters. Thus, export unit values of Australia, Brazil, Ceylon, Egypt, Malaya and Southern Rhodesia showed gains of between 61 per cent and 158 per cent between 1948 and 1951. As might have been expected, in many of these countries the subsequent dip in raw material prices was relatively great.

Table 1. Indices of Unit Values of Exports and Imports, and Terms of Trade of Primary Producing Countries as a Group, 1949 to 1952 (1948=100)

Period	Unit Value		Terms of Trade
	Exports	Imports	
1949:			
First half	101	95	106
Second half	95	88	108
Full year	98	92	107
1950:			
First half	91	83	110
Second half	105	88	119
Full year	99	86	115
1951:			
First half	125	98	128
Second half	123	104	118
Full year	124	101	123
1952:			
First half	115	105	110

Source: United Nations, Monthly Bulletin of Statistics, World Economic Report, 1950-51 and 1951-52, (Sales No.: 1952.II.C.4 and 1953.II.C.2) and Economic Survey of Europe, 1950, (Sales No.: 1951.II.E.1.).

Based on export and unit value data, expressed in United States dollars, and relating to primary producing countries of Asia (except Japan), Latin America, Africa and Oceania; and Canada, Finland, Spain and Yugoslavia. In view of the composite character of the data, figures are intended to convey only the order of magnitude of the changes.

Table 2. Indices of Unit Values of Exports and Imports, and Terms of Trade of Selected Primary Producing Countries, 1949 to 1952 (1948=100)

Country and items	1949	1950	1951	1952[a]
Argentina:[b]				
Unit value of exports	85.6	74.3	...	...
Unit value of imports	96.0	88.5	...	...
Terms of trade	89.1	84.0	...	...
Australia:[c]				
Unit value of exports	118	135	234	166
Unit value of imports	105	114	138	154
Terms of trade	112	118	170	107
Brazil:				
Unit value of exports	106	159	189	...
Unit value of imports	93	80	100	...
Terms of trade	114	199	189	...
Burma:[d]				
Unit value of exports	102	97	126	151
Unit value of imports	109	132	73	83
Terms of trade	94	73	173	182
Ceylon:				
Unit value of exports	106	144	175	136
Unit value of imports	95	98	116	136
Terms of trade	112	147	151	100
Chile:[b]				
Unit value of exports	96	105	133	...
Unit value of imports	96	92	107	...
Terms of trade	100	113	124	...
Egypt:				
Unit value of exports	89	115	182	...
Unit value of imports	100	101	116	...
Terms of trade	90	114	158	...
Malaya:				
Unit value of exports	93	173	258	187
Unit value of imports	101	115	144	129
Terms of trade	97	150	179	145
Mexico:[e]				
Terms of trade	89	92	107	97

Table 2 - continued

Country and items	1949	1950	1951	1952[a]
Philippines:				
Unit value of exports	69	77	84	64
Unit value of imports	104	79	100	94
Terms of trade	66	97	84	68
Southern Rhodesia:				
Unit value of exports	116	137	161	...
Unit value of imports	103	110	130	...
Terms of trade	113	124	124	...
Turkey:				
Unit value of exports	100	102	121	122
Unit value of imports	94	77	91	92
Terms of trade	106	132	133	133

Sources: United Nations Statistical Yearbook, 1952, United Nations Monthly Bulletin of Statistics and official trade statistics of the countries.

a/ Preliminary.

b/ Dollar terms of trade

c/ Twelve months ending 30 June of year stated.

d/ Twelve months ending 30 September of year stated.

e/ Source: Economic Survey of Latin America, 1951-52.

88. Trends were different in countries exporting chiefly cereals and meat. The unit values of cereal exports of Argentina and Burma showed moderate gains or failed to increase, though in each of these cases prices of other exports rose and average unit values increased. In the case of the Philippines, and in other countries as well, there were conflicting trends in the unit values of major export products.

89. In most countries, import unit values showed a tendency to fall in 1949, to recover in 1950 and to rise thereafter. Although in most of these countries the range of imports is more diverse than the range of exports, certain general trends are seen. For example, countries which import significant quantities of cereals and textiles tended to record stable or declining levels of import unit values, particularly until 1950. However, importers of raw materials were affected by the increases in some commodities during 1950 and 1951. The fall in the import unit values of some countries during 1949 was also due in part to lower prices following the improvement in supplies of raw materials and even in some types of manufactured goods after the end of the post-war boom.

90. The monetary devaluations of 1949 are reflected in the unit values of exports and imports of many countries. Sterling area countries, particularly, tended as a whole to show a steadier upward trend in import prices than other countries. At the same time, export prices showed greater upward movements until 1951 than other countries as a consequence of the more rapid increase in sterling prices as compared with dollar prices.

91. As a consequence of varied trends in export and import prices, terms of trade rose after 1948 and 1949 in most primary producing countries, although in a few instances improved adjustment in world demand to world supply after 1948 brought a deterioration in the terms of trade which persisted during the rest of the period. In most other cases, significant increases were recorded after 1948, particularly among exporters of commodities in short supply, although gains were largely erased by the recession in raw material prices in 1952.

Effects on the Balance of Payments

Elasticity in the supply of exports

92. It was noted earlier that changes in the prices of exports of primary producing countries are often accompanied by movements in volume in the same direction but of wider amplitude. These changes influence the gross value of exports and hence magnify fluctuations in the capacity to import - a pattern which prevailed in the past[2/] but was often submerged during the period 1948 to 1952. The supply of exports was generally inelastic, as a result of which for the majority of primary producing countries - changes in price rather than fluctuations in the volume of exports were the major influence on the increase in the capacity to import.

93. Table 3 confirms that the increases in the capacity to import of primary producing countries as a whole were more the result of favourable terms of trade than expansion in the volume of exports. Improvement in the terms of trade is reflected in the gains from trade, which grew steadily until the first half of 1950, and rose higher during the next twelve months. At their peak, during the first six months of 1951, gains from trade contributed an increase of 32 per cent to the capacity to import, compared with 1948. The volume of exports sagged in 1949 under the depressive influence of a decline in international demand, but recovered in 1950 and 1951. The maximum gain in the volume of exports was also reached during the first six months of 1951, when the increase added 14 per cent to the capacity to import. As a joint result of these changes in prices and volume of exports, the capacity of primary producing countries to import rose by 46 per cent over the base year 1948. However, less than one-third of the total increase was due to an expansion in the volume of exports while more than two-thirds resulted from the improvement in the terms of trade.

94. During the second half of 1951 the capacity to import lost about half the gains made since 1948. This was due to declines both in gains from trade and in volume of exports to points below the peaks reached in the earlier half of 1951. During the first half of 1952, the volume of exports recovered somewhat,

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2/ See United Nations, Instability in Export Markets of Under-Developed Countries.

but as a result of the deterioration in the terms of trade gains from trade continued to decline. Therefore, the spread between the quantum series and that of gains from trade was reduced.

95. Statistics of particular countries, shown in table 4, generally confirm the foregoing conclusions. The supply of exports was inelastic, first, because output in the export industries is not capable of very rapid increase in the short run and, second, because inventories - which helped to increase elasticity in the past - were generally low in the post-war period. Some outstanding exceptions are found in countries where the capacity of the export industries was being expanded, either as a result of the repair of war damage, as in countries of the Far East, or as a result of a flow of investment into export industries, as in Southern Rhodesia, Turkey and some oil producing countries in the Middle East.

Distribution of export proceeds

96. At any given time, net real purchasing power available to countries exporting primary products differs from their total capacity to import to the extent to which the proceeds from exports are not remitted to the exporting country.

97. In the first place, proceeds from exports are generally computed exclusive of payments for shipping and insurance, but the major part of such charges does not increase the income of the exporting countries. Most of the payments accrue to concerns incorporated in countries important in shipping and finance markets.3/ It may be noted also that fluctuations in freight rates in 1950 to 1952 were in the same direction as those in raw material prices and were of comparable intensity.4/

3/ It may be noted that some under-developed countries have established their own insurance or reinsurance organizations and have developed their own shipping services to recapture part of the charges on their exports.

4/ See, for example, United Nations, Economic Survey of Asia and the Far East, 1951 (Sales No.: 1952.II.F.2) pages 131 to 133. In cases of bulky primary commodities where the price per unit of weight is comparatively low (coal, grain) the variation in freight rates was frequently much greater than the variation in prices.

Table 3. Changes in Capacity to Import, Primary Producing Countries as a group, 1949 to 1952 (Percentage change from 1948 average)

Item	1949 First Half	1949 Second Half	1950 First Half	1950 Second Half	1951 First Half	1951 Second Half	1952 First Half
Increase (decrease -) in quantum of exports....	-4	-4	2	13	14	5	9
Gains from trade[a/].....	6	8	10	22	32	19	10
Total increase in capacity to import..	2	4	12	35	46	24	19
Proportion of total increase in capacity to import represented by gains from trade.....	b/	b/	80	63	69	81	54

Source: See table 1.

a/ Gains from trade are defined as the product of the quantum of exports in any given year (at prices of the base year, 1948) and changes in the terms of trade since 1948 (see footnote θ in part II).

b/ Over 100 per cent, indicating that part of the gains from trade were offset by declines in the quantum of exports.

Table 4. Quantum of Merchandise Exports of Selected Primary Producing Countries, 1949 to 1952 (1948 = 100)

Country	1949	1950	1951	1952 a/
All primary producing countries b/	96	108	110	109 c/
Argentina	73	104	87	50
Australia d/	111	110	104	101
Brazil	88	72	79	...
Burma e/	93	52	99	91
Ceylon	99	110	112	117
Chile	90	85	98	93
Egypt	108	107	79	...
Malaya	98	127	134	119
Mexico	104	117	109	106
Philippines	119	133	149	172
Southern Rhodesia	103	122	112	...
Turkey	128	126	129	150

Source: See table 2.

a/ Preliminary.

b/ See table 1.

c/ First six months.

d/ Twelve months ending 30 June of the year stated.

e/ Twelve months ending 30 September of the year stated.

98. In many primary producing countries, a further offset to increases in the capacity to import originates in the prevalence of foreign ownership among enterprises producing for export. In the short run, current operations of these firms affect the balance of payments of the exporting country principally through the remittance of profits and interest to non-resident stockholders and creditors.5/

99. It is clear that exporters' profits tend to follow changes in export prices, although they are not directly related to the terms of trade themselves. Therefore, the rapid rise in export prices in many countries greatly increased the profits of foreign-owned companies. This was reflected in the increase in remittances of profits from Ceylon, Chile and Southern Rhodesia, among other countries, as shown in table 5.

100. In Chile, exports of large mining companies during the post-war period have represented between 70 to 80 per cent of the total value of exports. Taxation measures and foreign exchange policies pursued in the past by the Government have augmented the proportion of the proceeds of exports retained in the country. During 1948 and 1949 these policies - together with changes in inventories and other capital movements of large mining companies - tended to reduce the fluctuations in the amounts of foreign exchange accruing to the country. Thus, while the f.o.b. value of exports of these companies fell by United States $76.8 million, their disbursements in Chile decreased by only United States $10.0 million. However, opposite movements took place the following year, when exports rose by United States $40.3 million while disbursements in Chile fell slightly, owing partly to reductions in inventories and increases in tax liability.

101. In Malaya, as in other Asian countries where the production and handling of exports are largely in the hands of foreign-owned enterprises, the extraordinary boom in export prices in 1950/51 greatly increased profits in the export sector. The dividend record of tin companies in Malaya was higher than at any time since the mid-nineteen twenties, while profits in

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5/ Transfers of investment income by foreign-owned export companies were often large in mineral exporting countries. During 1950/51 transfers amounted to 18 per cent of the exports of these companies in Chile, 49 per cent in Iraq (including capital movements, however), and 31 per cent in Venezuela.

Table 1. Components of Balances of Payment of Selected Primary Producing Countries at 1948 Prices, 1949 to 1952
(Percentage of merchandise exports in 1948)

Country and year.	Exports f.o.b.	Gains or losses from trade	Total capacity to import	Imports c.i.f.	Trade balance	Invisibles, net: Investment income	Invisibles, net: Other services	Invisibles, net: Total	Balance on goods and services	Financing of balance on goods and services: Unilateral transfers, net a/	Financing of balance on goods and services: Capital movements, net b/	Financing of balance on goods and services: Total
Australia: c/ d/												
1948/49	100.0	-	100.0	-83.3	16.7	-10.3	-6.7	-17.0	-0.3	1.0	-0.7	0.3
1949/50	110.8	13.8	124.6	-97.5	27.3	- 9.4	-5.4	-14.8	12.5	-5.9	-6.6	-12.5
1949/50	110.3	20.2	130.5	-116.2	14.3	-11.1	-8.9	-20.0	-5.7	-4.4	11.1	6.7
1950/51	105.9	72.4	178.3	-132.5	43.8	-11.6	-13.3	-24.9	18.9	-2.4	-16.5	-18.9
1951/52	101.0	7.9	108.9	-168.8	-59.1	- 9.1	-20.0	-29.1	-88.2	-3.9	92.1	88.2
Brazil:												
1948	100.0	-	100.0	-96.9	3.1	-8.1	0.5	-8.6	-3.5	...	3.5	3.5
1949	87.7	12.3	100.0	-100.5	-0.5	-8.1	-0.5	-8.6	-10.1	...	10.1	10.1
1950	72.1	71.2	143.3	-115.5	27.8	-10.0	-5.0	-15.0	12.8	...	-12.8	-12.8
1951	79.0	71.2	150.2	-166.7	-16.5	-7.3	-7.3	-14.6	-31.1	...	31.1	31.1
Ceylon:												
1948	100.0	-	100.0	-95.6	4.4	-4.9	9.0	4.1	8.5	-7.1	-1.4	-8.5
1949	95.0	13.8	108.8	-107.7	1.1	-2.9	8.7	5.8	6.9	-5.8	-1.1	-6.9
1950	98.0	53.2	151.2	-118.0	33.2	-2.1	0.4	-1.7	31.7	-5.7	-25.0	-30.7
1951	106.0	70.6	176.6	-139.8	36.8	-5.8	2.0	-3.8	63.0	-6.9	-36.1	-43.0
1952	110.0	6.7	116.7	-135.3	-6.6	...	...	...	...	...	...	...
Chile:												
1948	100.0	-	100.0	-81.8	18.2	-22.2	0.1	-22.1	-3.9	...	...	3.9
1949	89.8	1.3	91.1	-95.1	-4.0	-16.0	2.7	-13.3	-17.3	...	...	17.3
1950	86.5	5.4	91.9	-77.9	13.0	-17.2	0.4	-16.8	-3.5	...	...	3.5
1951	88.1	12.7	100.8	-97.5	13.3	-17.2	0.4	-16.8	-3.5	...	...	3.5
Egypt:												
1948	100.0	-	100.0	122.5	-22.5	-5.1	24.8	19.7	-2.8	-	2.8	2.8
1949	117.1	-22.2	94.9	119.8	-24.9	-10.3	32.9	22.6	7.7	-	-7.7	-7.7
1950	120.9	17.1	138.0	168.5	-27.5	-11.8	31.5	19.7	-7.8	-	7.8	7.8
1951	83.8	47.8	131.6	157.6	-26.0	-11.3	27.5	16.2	-9.8	-	9.8	9.8
Malaya:												
1948	100.0	-	100.0	-101.4	-1.4	...	...	5.7 e/	4.3 e/	...	...	...
1949	99.3	-2.3	97.0	-103.1	-6.1	...	...	5.5 e/	-0.6 e/	...	...	...
1950	131.9	80.0	211.9	-143.8	67.5	...	...	5.8 e/	73.3 e/	...	...	...
1951	103.4	205.4	308.7	-257.0	51.7	...	...	5.7 e/	57.4 e/	...	...	...
1952	115.1	51.8	166.9	-160.0	-2.1	...	...	...	...	...	...	...
Philippines:												
1948	100.0	-	100.0	-205.1	-105.1	-8.3	70.2	61.9	-43.2	16.9	-15.7	43.2
1949	115.9	-57.5	58.4	-192.0	-133.6	-13.8	21.8	8.0	-125.6	82.0	23.6	105.6
1950	135.3	1.7	135.0	-246.2	-111.2	-6.0	10.3	4.3	-6.9	76.0	-69.1	6.9
1951	148.9	-80.5	138.4	-144.8	-56.4	-7.6	13.6	6.0	-50.4	20.3	10.1	30.4
1952 f/	167.0	-55.0	112.0	-142.3	-29.3	...	...	...	...	...	...	...
Southern Rhodesia: c/ d/												
1948	100.0	-	100.0	-148.1	-48.1	-4.3	-18.5	-22.8	-72.9	17.8	55.1	72.9
1949	102.8	12.9	115.7	-180.7	-65.0	-8.4	-28.5	-36.9	-103.9	11.2	92.7	103.9
1950	125.0	30.0	152.0	-188.4	-36.4	-10.3	-24.4	-34.9	-69.3	7.3	62.0	69.3
1951	112.2	26.8	139.0	-230.0	-91.0	-12.2	-34.8	-47.0	-138.0	7.3	130.7	138.0
Turkey: g/ d/												
1948	100.0	-	100.0	-143.3	-43.3	-3.6	-11.8	-15.4	-78.7	40.1	38.6	78.7
1949	128.0	6.2	134.2	-169.5	-35.3	-7.1	-16.9	-24.0	-59.3	39.2	20.1	59.3
1950	138.0	40.8	146.8	-186.0	-39.2	-8.7	-23.2	-31.9	-71.1	36.7	34.4	71.1
1951	129.0	42.5	171.5	-190.7	...	...	...	...	...	...	...	...

Source: Computed by the United Nations Department of Economic Affairs on the basis of official statistics.

Exports and imports were deflated by their respective unit values; invisibles and financing items were deflated by import unit values. Gains or losses from trade were computed by the procedure explained in footnote 6 in part II. Figures for the last year shown are generally preliminary estimates.

a/ Including private remittances, immigration funds, donations, United States aid, grants by the Economic Cooperation Administration and other grants.
b/ Balancing figure: including short-term and long-term capital movements, changes in exchange reserves, errors and omissions and discrepancies due to statistical approximations.
c/ Imports, f.o.b.
d/ Net invisibles, other services: including freight and insurance on imports.
e/ Rough estimates, excluding investment income transferred abroad.
f/ Annual rate, January to November 1952.

rubber were among the highest recorded. This led to a heavy outflow of remittance on the score of investment income of foreign companies, which in 1950/51 were almost four times the amount in 1948/49. At the same time, yields of export duties on rubber and tin increased correspondingly.

102. Similar changes occurred in other Asian countries. In Ceylon, for example, the proceeds of export duties more than doubled between 1948 and 1951, while the value of exports rose somewhat less. In Indonesia, government receipts from export duties and exchange profits rose to an estimated 40 per cent of total revenues of the Government in 1951, rising parallel to the value of exports.

Short-term capital movements

103. The initial impact of a change in terms of trade on the foreign exchange resources available to an exporting country may be mitigated by capital movements. During the period 1948 to 1952, these capital movements - principally short-term - cushioned the economy of many exporting countries against the dislocating effects of excessive fluctuations in foreign demand. Table 5 indicates the trends in capital movements after 1948.

104. Short-term private capital movements, being responsive to speculative influences, might be expected to react to movements in terms of trade in so far as the latter give rise to expectations concerning the course of prices, financial developments or foreign exchange rates. On the other hand, monetary and fiscal agencies within an exporting country are in a position to apply compensatory policies by formulating their borrowing and investment programmes so as to relate the domestic aspects to the international accounts of the country. Thus it is to be expected that foreign public borrowing (either short-term or long-term) will be used to compensate for short-term fluctuations in the balance of payments.

105. After 1948 there were numerous instances of outward short-term capital movements from primary producing countries, coinciding in many cases with the rise in export prices. The magnitudes of these movements were greater with respect to the value of exports of some countries in the Far East and the Middle East, and of some of the less-developed countries in Latin America.

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106. Many of these capital movements arose in the course of normal international trade transactions, such as increases in credits, customarily extended by local exporters to their customers abroad. In other instances, capital movements may have been purely speculative, owing, for example, to expectations regarding the course of exchange rates. However, in some cases they were probably related to the lack of suitable investment outlets in the primary producing country (or to considerations of risk) which tend to give rise to delays in transferring part of the value of exports to the exporting country. In these cases, an increase in the value of exports tends to be accompanied by an accumulation of idle foreign exchange balances in the hands of exporters or by short-term investment abroad, thus transferring to other countries a part of the income-generating effects accruing from the initial increase in the value of exports.

107. It may be noted, however, that the scope of such movements tends to be smaller in countries which have established comprehensive exchange controls, and in fact, supervision of the use of export proceeds has sometimes motivated the establishment of exchange controls. Furthermore, regulations governing exchange rates and the amounts of foreign exchange that exporters are required to surrender to the monetary authorities have been changed either to offset fluctuations in foreign exchange returns arising from price fluctuations, or as a stimulus to the expansion of exports. On the other hand, even in these cases an improvement in the balance of payments often leads to a relaxation of controls over capital movements, followed by an outward flow of capital, or an increase in the flow.

108. Akin to these capital movements and of still greater importance, was the accumulation of gold and foreign exchange assets by governments and central banks. The foreign exchange assets of primary producing countries as a whole increased by the equivalent of United States $3,200 million between July 1950 and June 1951 but thereafter fell by United States $1,900 million to the end of the first half of 1952, as the imports of primary producing countries continued to rise in spite of the decline in the value of their exports. This occasioned a reversal in 1951 and 1952 of the previous surplus in the balance on merchandise and service accounts in the majority of the countries.[6/]

6/ See World Economic Report, 1951-52 and the surveys of regional economic commissions.

109. The accumulation of foreign exchange assets reached large proportions in some raw material exporting countries. In Burma, for example, the increase in value of exports in 1951, amounting to 238 million rupees, was accompanied by a net increase in gold and foreign assets of 154 million rupees. The increases in the value of the exports of Ceylon, Indonesia and Malaya in 1950 also led initially to a large expansion in the foreign exchange reserves of the countries, followed by similar movements, though of somewhat smaller magnitude, in the succeeding year. The immediate cause was the compensatory policy followed by monetary authorities. In addition, however, monetary authorities in Malaya (as well as in Ceylon until 1950) operate under an exchange standard which leads to purchases of foreign securities simultaneously with increases in currency in circulation.

110. Another type of compensatory capital movement is short-term borrowing, public and private, undertaken in unfavourable years, and followed by debt repayment during recovery. These are characteristic of a relatively high level of economic activity rather than a deficiency of aggregate demand, and occur more frequently in countries where the economy has reached a certain degree of diversification. For example, after the war and before 1950, Brazil had experienced a severe deterioration in the balance of current transactions, arising from the need for capital goods and raw materials, together with pent-up demand for many types of consumer goods. This led to substantial short-term borrowing and to an accumulation of deferred import payments which helped maintain the volume of imports. After an improvement in the terms of trade in 1950, the monetary authorities took steps to reduce short-term indebtedness, with the result that gains in trade during 1950, amounting to 16,000 cruzeiros (at 1948 import prices), were accompanied by outward capital movements, largely short-term, to the extent of nearly 5,000 million cruzeiros, and it was only towards the end of the year that the volume of imports began to increase substantially. In Chile, though for different reasons, short-term capital movements of foreign-owned mining companies also tended to offset the initial impact of changes in foreign trade gains, as indicated above.

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Long-term capital movements

111. Although capital movements in the past have tended to aggravate the cyclical instability of the economies of under-developed countries, long-term capital movements have on occasion exerted a compensatory influence with respect to changes in the terms of trade. During 1948 to 1952, their role in this connexion was not conspicuous, particularly for private investment, which - except for investments in petroleum - was of relatively moderate magnitude during the post-war period. On the other hand, public borrowing for economic development may be adjusted, within an integrated development policy, to changes in the balance of payments. Thus, in Chile, the authorities increased their foreign borrowing in 1949/50 with a view to counteracting the fluctuations in foreign exchange resources brought about by the recession of copper prices in 1949. This succeeded in retarding the fall in imports until 1950 and foreign borrowing decreased again during 1951.1/

1/ On the other hand, the improvement in the terms of trade the war facilitated the implementation of policies of redemption of long-term public debt or repatriation of foreign investments. This was the case in programmes carried out by the government of Brazil, among other countries, and also in the repatriation of foreign investment by private domestic investors, as in Ceylon.

Effects on the Output of Goods and Services

112. The gross geographical output of goods and services increased during 1948 to 1952 in almost all of the countries reviewed, as shown in table 6. The trends, however, varied from country to country. The rate of increase was greatest for Brazil, Ceylon, Malaya (until 1951), Mexico and the Philippines. In most other countries the rates of increase were smaller, while in Argentina and Burma the total output of goods and services actually decreased.

113. In analysing the trends, it is convenient to discuss production for export and the output of domestic industries separately.

Production for export

114. Although the prices of exports (particularly in 1950 and 1951) increased in the majority of the countries, the volume of production in the export sector in many cases rose only moderately or actually fell.

115. Reasons have been given earlier for expecting that the initial response of the export industries to an increase in export prices would often be of moderate magnitude, particularly in view of the technical difficulties in expanding production rapidly.8/ These factors were generally operative after 1948 and contributed to limit the increase in the output of exports. Furthermore, expectations of entrepreneurs regarding the temporary character of the additional demand - in so far as it was due to stockpiling, pipeline filling and speculative movements in industrial countries - probably helped to reduce producers' response. Similarly, price decreases in 1951 and 1952 were not followed initially by serious declines in the output of exports. Furthermore, the magnitude of price movements differed among commodities; hence the inducements to producers were not the same in all cases.

116. The relative importance of the factors mentioned above varied from country to country, as did the nature and magnitude of forces other than changes in external prices. The examples below indicate some of the variables influencing the output of exports in certain of the countries reviewed.

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Table 6. Composition of Gross Geographical Product in Selected Primary Producing Countries, at 1948 Prices, 1948 to 1952 (Percentage of gross geographical output in 1948)

Country and year	Gross geographical output of goods and services: Exports[a]	Other goods and services	Total	Gains, or losses (-), from trade	Total gross geographical product
Argentina:[b]					
1948	12.2	87.8	100.0	5.8 [c]	105.8
1949	7.3	92.9	100.2	3.2 [c]	103.4
1950	10.2	78.4	88.6	2.4 [c]	91.0
1951	11.0	79.8	90.8	0.8 [c]	91.6
1952	6.3	77.1	83.4	0.3 [c]	83.7
Australia:					
1947/48	21.7	78.3	100.0	-	100.0
1948/49	24.1	74.2	98.3	2.9	101.2
1949/50	23.9	82.3	106.2	4.2	110.4
1950/51	22.2	88.2	110.4	14.9	125.3
1951/52	22.0	81.9	103.9	1.6	105.5
Burma:					
1947/48	...	...	100.0	-	100.0
1948/49	...	...	91.4	-1.3	90.2
1949/50	...	...	86.5	-5.6	80.9
1950/51	...	...	98.9	16.6	115.5
Brazil:					
1948	12.2	87.8	100.0	-	100
1949	10.7	106.5	117.2	1.5	118.7
1950	8.8	108.3	117.1	8.7	125.8
1951	9.6	117.8	127.4	8.6	136.0
1952	...				
Ceylon:					
1948	32.3	67.7	100.0	-	100.0
1949	31.7	68.5	100.2	4.9	105.1
1950	33.3	85.4	118.7	19.0	137.7
1951	34.6	91.1	125.7	25.1	150.8
1952	33.4	96.3	129.7	2.9	132.6
Chile:					
1948	12.4	87.6	100.0	-	100.0
1949	11.1	92.3	103.4	0.2	103.6
1950	10.5	92.0	102.5	0.6	103.1
1951	10.9	97.9	108.8	1.6	110.4

Table 6. Composition of Gross Geographical Product in Selected Primary Producing Countries, at 1948 Prices, 1948 to 1952 (Percentage of gross geographical output in 1948) (continued)

Country and year	Gross geographical output of goods and services: Exports[a]	Other goods and services	Total	Gains, or losses (-), from trade	Total gross geographical product
Malaya:[d]					
1948	29.0	71.0	100.0		100.0
1949	29.9	76.1	106.0	-1.1	104.9
1950	31.4	86.6	118.0	29.5	147.5
1951	29.5	99.5	129.0	51.9	180.9
1952	26.8	82.2	109.0	25.5	134.5
Mexico:[b]					
1948	15.1	84.9	100.0	0.8 [c]	100.8
1949	15.4	90.5	105.9	-0.3 [c]	105.6
1950	18.6	98.4	117.0	- [c]	117.0
1951	18.1	103.5	121.6	2.2 [c]	123.8
1952	19.7	107.9	127.6	0.8 [c]	128.4
Southern Rhodesia:[e]					
1948	51.9	48.1	100.0	-	100.0
1949	52.5	49.6	102.1	5.2	107.3
1950	60.5	50.4	110.9	12.1	123.0
1951	54.9	60.5	115.4	10.8	126.2
Turkey:					
1948	6.2	93.8	100.0	-	100.0
1949	7.9	75.7	83.6	0.5	84.1
1950	7.8	96.1	103.9	2.5	106.4
1951	8.0	109.6	117.6	2.6	120.2
Philippines:					
1948	18.5	81.5	100.0	-	100.0
1949	16.0	91.1	107.1	-3.8	103.3
1950	16.9	97.4	114.3	0.2	114.5
1951	18.0	111.9	129.9	-2.1	127.8
1952	20.2	113.7	133.9	-5.5	128.4

Sources: Argentina and Mexico: From United Nations, Economic Survey of Latin America, 1951-1952; other countries: computed by United Nations Department of Economic Affairs, on the basis of official statistics.

a/ Quantum of exports, except Ceylon and Malaya, production for export.
b/ At 1950 prices.
c/ With respect to 1945.
d/ Based on data for national product.
e/ Net geographical output.

117. The production of copper in Chile fell between 1948 and 1949, and there was little increase in the three succeeding years. Technical problems relating to the nature and treatment of the ore were the principal factors which have tended to prevent a rapid expansion of output. In the case of nitrates, some of the plants were working at capacity in 1950 and 1951, and the uncertainty arising from the expansion of synthetic nitrogen probably tended to limit the growth in capacity and output during this period. The increase in the capacity of metal working industries in Chile permitted a sharp increase in the volume of exports of copper and iron semi-manufactures in 1951, a factor which contributed to the improvement of Chile's terms of trade in that year.

118. The rise in the prices of raw materials like rubber and copra stimulated some increase in output for export in Far Eastern countries in 1950 and 1951.2/ In Ceylon the index for rubber output reached 129 in 1951 (1948 = 100) but fell below the base year in 1952. Fluctuations in tea production were more moderate; and the age composition of the coconut trees was partly responsible for the fall in the output of coconut products before 1951.

119. In Malaya the output of rubber fell in 1949, recovered moderately in 1950 but declined sharply in 1951 and 1952. Tin production was expanded in 1949, as a result of the rehabilitation of the industry, but thereafter remained comparatively stable. On the other hand, the output of other agricultural export products rose steadily. Owing to these divergent trends, the composite index of the output of export products increased by only 8 per cent between 1948 and 1950, and the gains were lost in the next two years.

120. The output of export crops in the Philippines was stimulated by repair of war-time destruction. The rise in domestic demand due to internal inflation, however, served to retard recovery in output for export by comparison with domestically-consumed products in the post-war period, until 1948 or 1949. In the following years, the services furnished to foreign governments declined and partly offset the expansion of merchandise exports.

121. In Brazil, production of coffee is limited by the age composition of the coffee bushes, a result of inadequate planting during years of low coffee prices. The high prices reached after 1949 may have helped to raise productivity through the increased use of fertilizers, the spread of irrigation and other technical

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2/ It should be noted, however, that at its peak the over-all level of production barely exceeded the pre-war levels.

improvements, but these failed to bring about an increase in output until 1952.[10] The second largest export product, cotton, showed a rising trend in production during most of the period 1948 to 1952, but exports have lagged partly because of changes in quality and over-valuation of the cruzeiro[11] and also, probably, because of a relative shift to the domestic market in some years.

122. In Egypt, the fact that suitable land resources were already fully utilized prevented more rapid expansion of cotton production after 1949. On the other hand, in Southern Rhodesia output of the major export crop, tobacco, rose sharply between 1948 and 1950 owing to large investments in the industry (though drought caused a fall in yields in 1951, and exports declined). This illustrates the lag in the effects of price increases, for it was the rise in prices in 1946 and 1947 that stimulated the increase in output; price changes after 1948 were comparatively small.

123. In numerous instances, the rise in export prices was accompanied by appreciable increases in outp . This happened in the case of cotton in Mexico and Turkey, coffee (aside from Brazilian) and cacao. In some of the countries exporting agricultural raw materials, the expansion in export production was achieved in part at the expense of food crops. Such was the case in the Far East,[12] as well as in Mexico and, probably, in Egypt. In these cases the incentive to increase the output of raw materials arose in part from the fact that their prices increased; the fairly stable trend of cereal prices during the period under review probably tended - among other factors varying from country to country - to discourage an increase in cereal production among exporting countries. Both cultivated area and production of wheat and corn tended to remain stationary or to decline in Argentina and Australia. Rice production in the Far East likewise failed to record significant gains between 1949 and 1950,[13] while prices remained comparatively steady, and from 1950 onward rose only slightly.

10/ See United Nations, Economic Survey of Latin America, 1951-1952.

11/ Ibid.

12/ See United Nations, Economic Survey of Asia and the Far East, 1951, page 12.

13/ Ibid., pages 8 to 13. The report discusses other factors which contributed to reduce the volume of food production in that region.

124. Among wool exporting countries, the course of prices in 1950 and 1951 induced a moderate expansion of output in Argentina, Australia and Uruguay, limited by the size of flocks.

Output of domestic industries

125. In contrast with the trends in production for export, significant increases were recorded in the output of other sectors among most of the countries reviewed. As a consequence, the ratio of the output of domestic industries to exports generally increased throughout most of the period.

126. The trends in output of domestic industries, again, were not similar in all countries, but depended on the relative strength of the factors mentioned in part II (for example, the amount of gains from trade and the proportion retained within the country, the spending habits of the population, the diversification and capacity of domestic industries). In addition, the trends recorded after 1948 showed the influence of many other variables, the nature and strength of which differed from country to country.

127. One temporary characteristic of the post-war period in many countries was the existence of a substantial unsatisfied demand. This resulted primarily from restrictions on international trade during the war, which led to a reduction in imports into primary producing countries of consumer goods as well as capital goods. In many of these countries the expansion of secondary industry during the war had increased the demand for equipment both for replacement and for new investment, while in other countries, the repair of war-time damage also led to an increase in the post-war demand for capital goods. In all these cases, the propensity to consume and to invest were high.

128. At the same time, the recovery in imports during the post-war period had permitted expansion in the capacity of industries producing capital goods as well as consumer goods. Hence, in some countries, such as Argentina, Brazil and the Philippines, relatively large increases in output were recorded in 1948 or 1949, although gains from trade contributed but little to the product of these countries in those years.

129. The increase in the output of domestic industries was sometimes facilitated by the fall in import prices. This factor was apparent in a few cases in 1949, when it strengthened the influences of the existing high propensity to consume and to invest, mentioned above.

130. Another factor working in the same direction was the existence of large-scale public or private investment programmes. The importance of these to under-developed countries obviously transcends short-term considerations and in many cases such programmes are not closely related to current economic conditions. In the present context, however, they are significant principally because if the nature and timing of investments permit a prompt rise in output, the additional demand arising out of gains from trade is likely to be more easily met by additional supplies. Several instances of this relationship were observed after 1948, for example, in Brazil, Turkey and Southern Rhodesia, among others.

131. Manufacturing. In certain countries secondary increases in output in response to gains from trade were facilitated by the development and diversification of domestic manufacturing industries. This is due partly to higher productivity of industry in general, partly to relatively high income-elasticity of demand for manufactured products, partly to greater flexibility in adjusting industrial production plans and partly to the greater readiness of industrial entrepreneurs to respond to economic inducements. The incentive to increase output and thus to spread the gains in foreign trade may be expected to be higher in countries where manufacturing industry furnishes an important contribution to the national product, at least up to the point when a state of full employment has been reached.

132. The dynamic role of secondary industry is apparent in Australia, where manufacturing development and diversification have reached substantial proportions. Australian gains from trade until 1951 were accompanied by significant increases in the output of goods and services, in spite of high propensity to import, foreign competition and the achievement of nearly full employment of labour and capacity in many branches of industry.

133. In Brazil, where industry contributes one-third of the gross geographical product, the response of the economic system was similar, although the magnitudes were different. Between 1948 and 1951, gains in foreign trade amounted on the average to 7 per cent of the geographical product, and were associated with larger increases in non-export production. Here the rise in the terms of trade took place largely during the late part of 1949 and the early months of 1950, but compensatory monetary policy eased the impact of the improvement in the terms of trade and permitted a more orderly response of the economic system.

134. In Chile, the magnitude and timing of the changes were different, although the sequence of events was essentially similar. Chile has succeeded to a substantial extent in replacing imported non-durable consumer goods by domestic products although it is still dependent upon imports of most capital goods and a number of raw materials and petroleum. Thus, although exports represent less than 10 per cent of the geographical product, the significance of foreign trade to the economy is still very great. During the period 1948 to 1951 gains in foreign trade, averaging about one per cent of the geographical product, were accompanied by larger increases in the output of goods and services for the domestic market. The strategic role of foreign trade was apparent in 1950: a decrease in imports occurred as a consequence of the contraction in the capacity to import which followed the fall in copper prices in 1949. Although the volume of imports of raw materials and the output of manufacturing industries were maintained (partly by the utilization of inventories and partly at the expense of imports of consumer goods), total output of goods and services levelled off and investment suffered a significant decline. The recovery in copper prices during the latter part of 1950 coupled with other favourable factors created conditions leading to a renewal of the upward trend in total output during the following two years.

135. In the above three instances the output of industries producing for internal markets rose faster than total output while the output of most export goods became less (or actually fell), resulting in a relative decline in the ratio of exports to total output. It should be noted also that economic activity was maintained in these countries not only by favourable trends in foreign trade prices but also by a high level of domestic investment, both public and private.

136. Among countries where the industrial base is narrower, the stimulus from gains in foreign trade elicited only a limited response in the short-run. The favourable movement in the terms of trade between 1948 and 1951 led to substantial expansion of imports of consumer goods, raw materials (and in certain cases foodstuffs as well) and sometimes to higher land rents.

137. Nevertheless, considerable expansion in the output of manufacturing took place in a number of countries. In Malaya, industrial output starting from a low level rose nearly 75 per cent between 1948 and 1951. A similar trend,

though much less marked was observable in Ceylon, Egypt and the Philippines. In these cases, inadequate capacity in manufacturing industries probably limited the volume of production and the magnitude of industrial expansion.

138. In many countries expansion in manufacturing output was facilitated by increased investment in industry. This was the case in Australia, Brazil and Chile, as well as in other countries. In Southern Rhodesia, for example, manufacturing output rose by one-third between 1948 and 1950 and further large gains appear to have occurred in the following year. In this case, employment in construction indicated that activity in this industry expanded even more than in manufacturing. In Mexico, manufacturing production rose by 45 per cent between 1948 and 1952 but here the gains from trade probably did not play a decisive role in bringing about the expansion of the economy because of the limited magnitude and erratic direction of changes in terms of trade.

139. When the terms of trade move against primary producing countries, the unfavourable impact on the over-all level of economic activity can be offset, partly or wholly, by the expansion of output in industries producing for the home market with the support of appropriate government policies. This was the case in Argentina, where the terms of trade reached a peak in 1948 and then deteriorated sharply. While the output of agriculture fell, owing partly to climatic conditions, industrial output, including construction and public utilities, though lower in 1949, thereafter remained fairly constant until 1951, at a level somewhat below the 1948 maximum but above the volume of earlier years. In contrast, the level of activity in the remaining sectors increased rapidly until 1949, dropped back in 1950 to the 1947 level and again fell in 1952.

140. Similar evidence of sustained manufacturing production appeared in 1952 in other countries affected by the recession in raw material prices, including Malaya, the Philippines and, probably, Ceylon.

141. The case of Argentina also exemplifies the cumulative effects of an adverse movement in terms of trade.[14/] The output of manufactures had a stabilising

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14/ In this country, as in others, the effects were the result not only of changes in the terms of trade but also of other factors (see United Nations Economic Survey of Latin America, 1951-1952, chapter II).

influence in 1949 to 1951. As the terms of trade steadily worsened after 1948, however, it became increasingly difficult to maintain the supply of certain raw materials and fuels, while domestic markets began to shrink. The turning point was reached in 1952 when the terms of trade had fallen to about 50 per cent below the 1948 peak; a further decline in the agricultural production and in exports, as a result of drought, forced a drastic cut in imports and this, together with smaller public investment following the completion of the five-year plan, reduced aggregate demand and was followed by a reduction in the output of industry for the first time since 1949.

142. Manufacturing industries in the majority of primary producing countries are largely dependent upon imported equipment and very often upon imported raw materials. Hence, gains from trade in 1950/51 resulted in increased imports in both categories. Output and the ability to absorb raw materials, however, are limited in the short run by the productive capacity of the industries in question. When a condition of full employment is reached, the rise in domestic prices stimulates the importation of both equipment and finished consumer goods. This was apparent in 1950 and 1951 in Australia as well as in certain other countries. In these cases, an adverse movement in the capacity to import may later lead to a reduction in imports of finished consumer goods and capital goods before imports of raw materials, fuels and, in certain cases, essential consumer goods are affected. In Australia, for example, the reversal in terms of trade in 1951/52 at a time of quickly rising imports was followed by a drop in the level of industrial production which led to the introduction of severe restrictions on imports in 1952.

143. In Argentina, imports of raw materials and fuels constituted more than one-fourth of total imports during the period 1947 to 1949, and imports of capital goods close to 45 per cent of the total in the same period. After 1949, the volume of imports of raw materials remained steady and fuel imports increased moderately. Imports of consumer goods, however, fell by 63 per cent between the period 1947 to 1949 and 1952, while those of capital goods dropped nearly 40 per cent, although in both cases the decline was offset in part by an expansion in domestic output. In Chile, the short-lived contraction of imports in 1950 affected consumer goods and fuels. Imports of capital goods levelled off but did not actually fall.[15/]

15/ Economic Survey of Latin America, 1951-1952.

144. Agriculture. The pattern of land tenure, technical conditions of production, the availability of unused land and the nature and size of markets, together with climatic conditions, are among the factors which determine both the level of agricultural and pastoral output and its response to favourable prices; some of these variables may tend to diminish or obscure the immediate impact of price changes. In certain instances the development of agricultural production was held down by the movement of population to the cities, encouraged by industrial development. The output of agricultural and livestock production between 1948 and 1951 showed, on the whole, little initial response to short-run price changes, not only in the case of export products but also in the case of products for internal consumption.

145. With respect to the latter, however, some outstanding exceptions are to be found in countries where recent advances in production reflect the play of temporary factors, such as the rehabilitation of installations damaged during the war or shifts in international demand. Thus, Indonesia, Malaya, the Philippines and Thailand substantially increased their agricultural output after 1948.

146. In other cases in which significant progress was achieved in the output of agricultural produce for the domestic market, increases in production were facilitated by governmental programmes for agricultural development. This was the case in Colombia and Uruguay, among other Latin American countries, as well as in Ceylon and Turkey. In Ceylon, the land development programme was accompanied by an increase in production for the domestic market of over 30 per cent between 1948 and 1951. In Turkey, the extension of mechanization facilitated the increase in output of cereals, leading to an exportable surplus of wheat in 1952.

147. Other sectors. Activity in services and public utilities generally increased in most of the countries reviewed. The rates of increase were not equal for all countries or among different sectors; in transport and power industries especially, the rise was limited in some countries by inadequate capacity, which could not easily be expanded in the short run. In some countries where industries producing for domestic markets do not contribute significantly to the national income, commerce and personal services were among the sectors which expanded at a greater rate in response to gains from trade.

148. In many instances internal commercial activity rose almost simultaneously with external prices, for example, in Brazil during 1949 and 1950 and in Ceylon during 1950 and 1951. In Malaya, the expansion in entrepôt trade during the same years contributed significantly to the rise in the geographical output of the country.

149. On the other hand, price declines in 1952 were accompanied in some of the countries by substantial contraction in commercial activity, which was among the major causes of the decline in the geographical output of goods and services recorded.

Effects on the Course of Domestic Prices and the Distribution of Incomes

The course of domestic prices

150. In many under-developed countries inflationary tendencies appeared with the rise in foreign trade prices after 1948. However, the magnitude of price increases varied greatly among countries, as shown in table 7, as did the relative importance of inflationary forces of external or domestic origin and the strength of anti-inflationary policies.

151. In each country, therefore, changes in foreign trade prices were only one of the forces at work, and their contribution to the movement in domestic prices was not always decisive. The influences of different variables mentioned above cannot always be clearly separated, however, in some cases it is possible to indicate the strength of the influence of foreign trade prices on the course of other prices. The following analysis attempts to abstract from general inflationary and deflationary tendencies those that were immediately connected with foreign trade prices.

152. The composition of imports clearly influenced the course of domestic prices. First, the relative stability of prices of cereals and, to a lesser degree of textiles and other consumer goods, contributed to keep the cost of living down, especially in countries where consumption is relatively less diversified, while in some instances declines in the prices of certain imported capital goods probably contributed to reduce production costs in industry. In countries where raw materials constitute a significant proportion of imports, however,

movements in import prices and domestic prices corresponded less closely. Furthermore, in countries experiencing an expansion of investment in export or manufacturing industries, or in other fields, the trends in both import and domestic prices, including cost of living items, tended to rise more sharply than in other countries.

153. On the other hand, in many of the countries, producers in export industries did not expand their demand for goods and services from other sectors to the same extent as proceeds from exports increased. Not only production remained fairly stable in the export sector, but in some of these countries new investment in export industries actually declined; in these cases taxation of exports and other fiscal measures were among the most significant means of stimulating economic activity in other sectors of the economy by increasing the aggregate demand for goods and services.

154. In many of the countries reviewed the course of domestic prices was perhaps less closely related to export than to import prices. The relation between these price series was less close, however, in some countries in which foreign trade is small in relation to the gross geographical product (for example, Brazil) or where, as in Australia, the export sector is closely integrated with the rest of the economy, and the achievement of substantially full employment in many industries limited the magnitude of secondary increases of output in other sectors. The following paragraphs indicate briefly some of the major forces active in individual countries.

155. In Southern Rhodesia, which imports many foodstuffs and consumer goods, the cost of living and import prices tended to show parallel trends until 1951. The expansion of manufacturing output, however, probably contributed in this case to moderate the increase in the cost of living, counteracting the rise in prices of imported goods. Egypt, which is also a food importing country, lowered or abolished import duties on cereals and this contributed to the stability of retail prices and also permitted an increase in food supplies in spite of a moderate shift in production from cereals to cotton. Simultaneously, duties on finished consumer goods were raised, and those on raw materials and capital goods were lowered, to stimulate investment and production in manufacturing. This in turn led to a significant increase in money wages in the towns,

Table 7. Indices of Prices and Wages in Selected Primary Producing Countries, 1949 to 1952
(1948 = 100)

Country and item	1949	1950	1951	1952[a]
Australia:				
Export prices:				
All items	118	135	234	166
Wool	127	165	348	197
Metals	128	113	185	218
Import prices:				
All items	105	114	138	154
Wholesale prices:				
All items	112	132	163	184
Imported goods	104	121	138	149
Cost of living:				
All items	109	120	146	170
Food	111	125	162	201
Money wages	112	122	147	179
Brazil:				
Export prices	106	159	189	...
Import prices	93	80	100	...
Wholesale prices	110	127	154	172
Cost of living:				
All items	98	104	113	133
Food	96	103	108	131
Money wages in manufacturing	114	124	132	150
Ceylon:				
Export prices	106	144	175	136
Import prices:				
All items	95	98	116	136
Grains and flour	96	94	101	129
Textiles	82	85	101	82
Capital goods	99	102	140	128
Cost of living (Colombo):				
All items	99	105	109	108
Food	104	112	112	110
Money wages on plantations	102	119	145	146

Table 7. Indices of Prices and Wages in Selected Primary Producing Countries, 1949 to 1952 (continued)
(1948 = 100)

Country and item	1949	1950	1951	1952[a]
Chile:				
Wholesale prices:				
All items	114	134	175	217
Domestic goods	114	130	164	210
Food	109	116	137	...
Textiles	119	138	172	...
Imported goods	115	143	200	234
Food	130	189	232	...
Raw materials	110	134	175	...
Cost of living:				
All items	119	137	167	204
Food	115	134	169	216
Money wages in manufacturing	120	141	156	...
Egypt:				
Export prices	89	115	182	...
Cotton	82	145	174	106
Import prices	100	101	116	...
Metals	95	124	140	119
Fertilizers	107	107	107	107
Wholesale prices	94	104	116	113
Cost of living:				
All items	99	104	114	113
Food	102	111	120	117
Money wages in industry	107	135	...	...
Malaya:				
Export prices:				
All items	98	173	258	187
Rubber	92	263	388	237
Tin	110	128	196	177
Import prices	101	115	144	129
Cost of living (January 1949 = 100):				
All items	...	108	136	138
Food	...	97	104	110

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Table 7. Indices of Prices and Wages in Selected Primary Producing Countries, 1949 to 1952
(1948 = 100)

Country and item	1949	1950	1951	1952[a]
Australia:				
Export prices:				
All items	118	135	234	166
Wool	127	165	348	197
Metals	128	113	185	218
Import prices:				
All items	105	114	138	154
Wholesale prices:				
All items	112	132	163	184
Imported goods	104	121	138	149
Cost of living:				
All items	109	120	146	170
Food	111	125	162	201
Money wages	112	122	147	179
Brazil:				
Export prices	106	159	189	...
Import prices	93	80	100	...
Wholesale prices	110	127	154	172
Cost of living:				
All items	98	104	113	133
Food	96	103	108	131
Money wages in manufacturing	114	124	132	150
Ceylon:				
Export prices	106	144	175	136
Import prices:				
All items	95	98	116	136
Grains and flour	96	94	101	129
Textiles	82	85	101	82
Capital goods	99	102	140	128
Cost of living (Colombo):				
All items	99	105	109	108
Food	104	112	112	110
Money wages on plantations	102	119	145	146

Table 7. Indices of Prices and Wages in Selected Primary Producing Countries, 1949 to 1952 (continued)
(1948 = 100)

Country and item	1949	1950	1951	1952[a]
Chile:				
Wholesale prices:				
All items	114	134	175	217
Domestic goods	114	130	164	210
Food	109	116	137	...
Textiles	119	138	172	...
Imported goods	115	143	200	234
Food	130	189	232	...
Raw materials	110	134	175	...
Cost of living:				
All items	119	137	167	204
Food	115	134	169	216
Money wages in manufacturing	120	141	156	...
Egypt:				
Export prices	89	115	182	...
Cotton	82	145	174	106
Import prices	100	101	116	...
Metals	95	124	140	119
Fertilizers	107	107	107	107
Wholesale prices	94	104	116	113
Cost of living:				
All items	99	104	114	113
Food	102	111	120	117
Money wages in industry	107	135	...	...
Malaya:				
Export prices:				
All items	98	173	258	187
Rubber	92	263	388	237
Tin	110	128	196	177
Import prices	101	115	144	129
Cost of living (January 1949 = 100):				
All items	...	108	136	138
Food	...	97	104	110

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Table 7. Indices of Prices and Wages in Selected Primary Producing Countries, 1949 to 1952 (continued)
(1948 = 100)

Country and item	1949	1950	1951	1952[a]
Mexico:				
Wholesale prices:				
All items	110	120	148	154
Raw materials	113	126	166	168
Cost of living:				
All items	105	112	126	144
Food	104	108	124	144
Philippines:				
Export prices:				
All items	69	77	84	63
Copra	64	74	76	48
Sugar	114	116	118	111
Import prices	104	79	100	94
Wholesale prices (1949 = 100):				
All items	100	97	109	100
Domestic goods	100	93	101	93
Imported goods	100	122	153	136
Cost of living:				
All items	94	93	99	95
Food	93	86	94	90
Wearing apparel	95	130	175	...
Money wages:				
Agriculture	104	102	103	105
Unskilled labour, Manila	104	91	99	105
Southern Rhodesia:				
Export prices:				
All items	116	157	161	
Import prices:				
All items	103	110	130	
Cost of living:				
All items	106	114	121	
Food	107	121	131	
Clothing	108	115	127	

Table 7. Indices of Prices and Wages in Selected Primary Producing Countries, 1949 to 1952 (continued)
(1948 = 100)

Country and item	1949	1950	1951	1952a/
Turkey:				
Export prices:				
All items	100	102	121	122
Cotton	116	112	186	
Tobacco	90	93	91	81
Import prices:				
All items	94	77	91	92
Wholesale prices:				
All items b/	108	97	103	104
Raw materials	104	94	114	108
Cost of living:				
All items	110	104	103	109
Food	112	106	102	110

Source: United Nations, Statistical Yearbook, 1952, Monthly Bulletin of Statistics and official national statistics.

a/ Preliminary.

b/ Domestically consumed goods.

particularly after 1949. On the other hand, there are indications that wages in agriculture rose less rapidly and that profits of tenant farmers probably increased somewhat but less than land rents.

156. In Turkey, which had become more self-sufficient in respect of food supplies, crop failures in 1949 and 1950 curtailed the availability of foodstuffs and raised food prices, but in 1951 the output of cereals and legumes (and of agricultural raw materials) greatly increased again. Imports of cereals at relatively low prices helped to maintain domestic supplies of food, and in 1952, the recovery of cereal production was complete leading to the emergence of an export surplus. Furthermore, unit values of imported goods generally fell after 1948, thus aiding the maintenance of domestic price stability. On the other hand, wages - and manufacturing output and construction - rose sharply in the cities, although in 1950 they had not recovered to pre-war levels.

157. The stability of import prices of textiles and food before 1951 helped to maintain relatively stable price levels in Ceylon, which is greatly dependent on many essential imports. Money wages rose considerably on rubber, tea and coconut plantations but in urban occupations wages and costs appeared to have risen less during the export boom in 1950 and 1951. At the same time, the development of agricultural production for internal markets added to the effectiveness of anti-inflationary policies and rising real incomes among agricultural producers.

158. In other countries, some of the factors mentioned above were also operative but inflationary trends - arising in part from general scarcities due to war-time destruction and from rehabilitation expenditures - brought about a general rise in domestic prices of the same intensity as the increases in money wages. However, in some of these countries wages in export industries tended to rise above the average. In the Philippines, rehabilitation in agriculture was accompanied by substantial increases in production. On the other hand, the capacity to import generally moved downwards, first because of the drop in export prices in 1949 and 1951 and, second, because of gradual reduction in governmental grants. This led to a contraction of imports after 1950, reflected in increased prices of manufactured goods, which prevented the cost of living from falling to the same extent as

food prices. Money wages in the cities declined slightly between 1949 and 1950, but recovered thereafter.

159. In Malaya the expansion of activity in urban industries only partially moderated the inflationary consequences of a rise in import prices, because of the lack of development of domestic industries. Accordingly, the cost of living index in Singapore followed the direction and magnitude of the index of import prices.

Distribution of incomes and changes in employment

160. Fluctuations in the terms of trade have a direct effect on the distribution of incomes accruing from exports and an indirect effect through the secondary impact of the changes in incomes on employment, production and prices. Therefore, the ultimate consequences of a change in terms of trade are not easily distinguishable from those of other variables. In the majority of the primary producing countries reviewed for which information is available, aggregate real incomes grew during 1948 to 1951, but aggregate labour incomes rose at a lesser and steadier rate than other incomes. However, in many cases in which export prices and terms of trade fell in 1952, real labour income continued to increase, while other incomes fell. These changes occurred within the export sector, which was the sector most directly affected by variations in export prices, but similar changes probably occurred in non-export industries in general.

161. The analysis in the preceding chapters points to some of the causes underlying the trends noted above: first, the export boom was primarily a phenomenon of price rather than of quantity; second, its short duration limited the effect of inflationary increases in domestic demand arising from gains in foreign trade; third, the high elasticity of the supply of labour, especially in countries where the subsistence agriculture sector is important, rapidly translated increases in the demand for labour into an expansion of employment and retarded the rise in real wage rates in the market economies.

162. Employment showed rising trends until 1951 in the countries for which information is available, but in 1951 and 1952 it tended to level off in some of them although few instances of actually falling employment were noted.

By and large, after 1948, real wage rates were more stable than either employment or aggregate real wages. Thus, in the short run it appears that the largest gains in the standard of living among wage earners, especially among the less developed countries, were achieved by those formerly employed in the low-productivity sectors and were brought about as a result of their shift to employment having higher productivity and wages.

Government revenue

163. During the period of rising prices before 1951, revenue increased in the majority of primary producing countries reviewed, both in money terms and in real terms.[16/] The increase in revenue extended to export taxes - in countries where these were in effect - and also to other taxes, as a result of the rise in the value of exports and in the gross national product. In 1949, devaluation of currencies led in many Asian and Latin American countries to the establishment or revision of export taxes, designed to channel to the treasury a proportion of the increased value of exports. A similar process accompanied widespread price increases in 1950 and 1951. Some countries raised additional revenue from profits of fiscal agencies active in foreign trade or from profits arising from exchange controls.

164. In most Asian countries, proceeds from export duties rose rapidly. Thus, in Malaya the yields of ad valorem duties on rubber and sliding-scale duties on tin rose fivefold between 1948 and 1951. Revenue from export taxes, which constituted one-fourth of the total revenue of the Federation of Malaya in 1948, accounted for almost one-half in 1951. In Ceylon, proceeds from export duties more than doubled between 1948 and 1951, and their share in total government revenues increased from 20 per cent in 1948 to 36 per cent in 1951.

165. In most countries, however, public revenues initially lagged behind the rise in the value of exports and of gross product. This was due in some cases to delays involved in the enactment or revision of taxes and, in others, to delays inherent in the collection of certain categories of revenue, such as

16/ A brief discussion of the relation of fluctuations in prices and changes in government revenue is included in part II.

income taxes. As a consequence, in 1950 - and even in 1951 - the ratio of public revenue to gross national product declined in many countries, but recovered in 1952 as the yield of taxes continued to grow while the gross geographical product tended to level off or actually decrease.

166. In 1952, export taxes were lowered in some countries, and differential exchange rates adjusted with a view towards mitigating the loss of income in the export sector. In these cases, it is probable that revenue may fall after 1952.

167. In 1950 to 1952, however, public expenditure increased earlier and more steadily than revenue, not only because of inflationary price increases but also because of expanded governmental action, including the use of food subsidies in some countries, as well as widespread increases in development expenditures. Hence, delay in the increase of tax receipts led to the reduction of surplus or to actual deficits which, to the extent that they were financed from banking sources, tended to exert inflationary pressure. On the other hand, public expenditures remained high or were actually increased in 1952 in many countries. Although in that year revenue was exceptionally high in a number of countries, it declined in others; in the future, the decline in tax receipts may likely jeopardize development plans, unless new sources of revenue or credit can be developed.

The course of investment and development planning

168. Increases in profits accompanying rising prices and higher real national incomes generally induce optimistic expectations among entrepreneurs and hence lead to an increase in the volume of capital formation. This was generally the case in most under-developed countries during the period after 1948.

169. Table 8 shows trends in consumption and investment. Gross domestic capital formation rose steeply between 1948 and 1951 in the majority of the countries. In some of the Far Eastern countries, however, the gradual levelling off in expenditures for rehabilitation of war-time damage, together with unsettled political conditions in certain instances, contributed to hinder the rise in capital formation.

170. In the majority of the countries reviewed, gross capital formation grew at a greater rate than the gross geographical product, notably in Brazil, Ceylon, Mexico and Southern Rhodesia. In Australia, the rate of increase in capital formation was smaller than in gross product, but the initial amounts in 1947 to 1949 were large not only in absolute figures but also in relation to gross geographical product. During the period 1948 to 1952, gross capital formation averaged 24 per cent of gross product. In Southern Rhodesia the ratio was even larger, averaging 44 per cent. In most other countries, however, the ratio of investment to gross product was much smaller, averaging 13 per cent for Brazil, 9 per cent for Ceylon, 12 per cent for Chile and 15 per cent for Mexico.

171. The contribution of foreign investment to the volume of capital formation varied widely among the countries reviewed. Table 8 shows that a few countries were able to attract relatively large amounts of foreign capital. In Southern Rhodesia the inflow of foreign capital (together with immigrants' funds) represented nearly three-fourths of total capital formation. In other countries the participation of foreign capital was smaller.[17] On the whole, there was little evidence that foreign investment - particularly long-term capital - was directly related to current changes in the terms of trade to a substantial extent. In many instances, the flow of foreign capital appeared to be related to availability of resources, comparative costs, security of investment, level of demand for particular products and similar considerations. In some instances, outward capital movements (including increases in foreign assets) more than offset the inflow of foreign long-term capital. On occasion, net outward capital movement was larger than total domestic capital formation.

172. The results described above are to some extent a consequence of the investment process. Clearly, the amount of investment in fixed capital need not vary directly with short-term influences, such as a rise in prices, regardless of the magnitude of such changes, when these are not expected to last. This is because entrepreneurs plan production with a view to maximizing the net returns expected during the normally long lifetime of capital assets. Furthermore,

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17/ In some countries, including the Philippines (particularly until 1950) and Turkey, foreign grants supplemented the inflow of foreign capital.

Table 8. Gross available domestic means, at 1948 prices, and their allocation, 1948 to 1952
(Percentage of gross geographical output in 1948)

Country and Year	Gross geographical product	Net imports or exports (-) of goods and services a/	Net investment income transferred abroad	Gross domestic means available for consumption and investment	Allocation			
					Private consumption	Government consumption of goods and services	Gross domestic investment	Capital formation
							Public	Private
Argentina								
1948	100.0	-0.3	-0.2	100.1	69.1		30.6	
1949	103.4	1.6	-0.2	101.8	69.5		32.6	
1950	97.0	-1.2	-	98.2	73.5		24.7	
1951	91.6	2.7	-	88.9	73.5		15.4	
1952	93.7	3.9	-	89.8	74.3		15.5	
Australia								
1947/48	100.0		-2.3	97.7	66.4	7.3	2.0	22.1
1948/49	102.3	-2.6	-0.5	99.1	70.4	8.5	2.4	18.0
1949/50	116.4	1.4	-1.2	116.6	73.1	9.2	2.4	27.7
1950/51	128.3	-3.9	-1.4	123.0	68.2	10.3	26.3	18.2
1951/52	109.5	19.1	-2.0	128.6	77.2	11.7	26.3	21.3
Burma								
1947/48	100.0	6.7	-	106.7	68.0		38.7	
1948/49	90.3	-6.3	-	83.9	69.1		14.8	
1949/50	80.9	-1.4	-	79.5	66.0		13.5	
1950/51	113.5	-8.5	-	105.0	71.2		33.8	
Brazil								
1948	100.0	0.4	-1.1	99.3	87.3	2.0		9.0
1949	118.7	1.1	-1.1	118.7	105.7	2.0		11.1
1950	130.6	-1.4	-1.2	128.0	107.5	2.0		18.6
1951	133.4	3.9	-0.9	136.4	117.7	2.0		16.8
Burma								
1948	100.0	-3.1	-1.7	95.2	89.0 b/	4.2 b/		
1949	102.1	-3.4	-1.0	101.7	94.0 b/	7.7 b/		
1950	127.7	-10.9	-0.7	126.1	114.3 b/	11.8 b/		
1951	130.8	-14.9	-2.1	113.8	136.3 b/	13.5 b/		
1952	133.6	3.9	-3.0	134.5	...	...		
Chile								
1948	100.0	0.1	-2.6	97.7	87.1 b/	12.4 b/		
1949	103.4	0.2	-2.0	101.7	89.9 b/	11.8 b/		
1950	103.1	0.7	-2.3	101.5	87.8 b/	13.7 b/		
1951	110.4	0.4	-2.1	108.7	94.5 b/	14.2 b/		
Colombia								
1948	100.0 a/	-2.1		97.9	88.7 b/	9.2 b/		
1949	104.9 a/	0.1		105.0	97.3 b/	7.6 b/		
1950	117.5 a/	-8.5		109.0	111.5 b/	7.7 b/		
1951	130.9 a/	-18.5		112.4	134.9 b/	13.9 b/		
1952	134.5 a/	...		...	...	...		
Ecuador								
1948	100.0	3.1	-1.9	101.1	87.0	3.1		9.0
1949	102.6	0.5	-2.0	101.1	88.9	3.9		9.3
1950	117.0	-0.8	-1.6	114.6	98.6	7.0		9.0
1951	119.8	3.0	-1.7	121.1	103.7	9.1		10.3
1952	118.4	0.8	-1.4	117.8	100.7	9.2		11.9
Philippines								
1948	100.0	4.3	-0.8	103.4	88.8	4.3	1.7	9.6
1949	102.3	10.5	-1.6	112.1	99.4	7.8	1.9	7.5
1950	114.5	0.7	-0.6	114.6	94.4	9.5	2.2	8.3
1951	127.2	2.6	-0.8	128.6	112.8	5.9	1.8	7.9
1952	138.1	...	...	...	...	...	...	...
Southern Rhodesia								
1948	100.0 a/	39.3	-3.5	135.8	79.1	10.3	46.5	
1949	107.3 a/	44.9	-3.6	141.8	84.3	11.1	46.4	
1950	143.0 a/	20.0	-4.2	146.8	90.3	12.0	42.6	
1951	146.3 a/	29.6	-4.9	170.9	97.0	14.6	49.3	
Turkey								
1948	100.0	4.9	-0.2	104.7	...	...	...	...
1949	94.1	3.7	-0.2	97.6	...	...	...	...
1950	108.4	3.2	-0.5	110.1	...	...	...	...
1951	120.2	3.2	-0.5	122.9	...	...	...	...

Source: Argentina and Mexico: United Nations, Economic Survey of Latin America, 1951-52; other countries: compiled by United Nations Department of Economic Affairs, on the basis of official statistics.

a/ This series represents the combined capital inflow (outflow -), unilateral transactions and errors and omissions in the balance of payments.
b/ Including changes in inventories.
c/ Including changes in inventories.
d/ Gross national product.
e/ Net geographical product.

when - as was frequently the case in 1949 and 1950 - enterprises were working below capacity, a rise in sales prices over unit costs need not be followed immediately by new investment, except for expenditures to put idle installations back into production and perhaps to modernise production processes.

173. In addition, even when the above considerations do not apply, some time normally elapses between a change in incomes and profits and a corresponding change in the volume of investment. The delays involved generally differ among categories of investment and may be expected to be longer for investments in fixed capital.[18/] If in the meantime conditions lead to a reversal of entrepreneurial expectations, investment programmes may be postponed or abandoned.[19/] In view of the amplitude and duration of changes in prices and profits, the delays inherent in the investment process assumed great significance for the less developed primary producing countries in 1948 to 1952.

174. The above considerations are especially pertinent with respect to large-scale undertakings, whether these produce for export or for the domestic market. In particular, the greater the capital intensity of the productive process, the longer the expected life of the capital assets and the more extensive the period of preliminary exploration, market analysis and determination of the productive process and types of equipment, the more will investment decisions be divorced from short-run inducements and become sensitive to long-run considerations. These considerations - which generally apply to mineral industries, transportation, public utilities and, to a lesser extent, agricultural enterprises - also tend to reduce the response of the volume of investment to changes in current prices and profits. Investment decisions among enterprises in the export sector are dependent on certain additional factors which may reduce the influence of current developments in an exporting country still more.

18/ The full consequences of new investment on the output of goods and services is further retarded by the time elapsing between the preparatory stages of the project and the completion of installations.

19/ The consequences may be even more serious if expectations, with respect to changes in real income, are more elastic in a downward than in an upward direction, which would probably occur in the case of entrepreneurs in under-developed countries embarking on new or unfamiliar fields.

Investment decisions are also dictated by consideration of long-run trends in prospective sales prices and unit costs. But among export industries, sales prices are determined by conditions in world markets, while local costs and taxes in the producing country are significant to the extent that they are an important part of total unit costs (which is not always the case) and that trends in local costs and taxes are expected to diverge from other costs or from costs and taxes in other countries producing the same commodities. Furthermore, enterprises having access to adequate sources of finance in the capital markets of more developed countries are in a position to plan their investments with less reliance upon the current volume of profits. Therefore, large-scale investment programmes are often conducted during periods of stable or falling demand and prices; for example, mining investments in Northern Rhodesia were planned at a time of high copper prices, though executed largely in the depression of the nineteen-thirties. The same is generally true of investments in petroleum in the Middle East during this period.

175. In practice, fixed investments by large-scale enterprises tend to increase during prosperous times to the extent that long-term investment projects have already been formulated.[20] However, this is not always so. It often happens that favourable market conditions fail to evoke any great flow of new investment, as in the case of tin companies in Bolivia during a large part of the nineteen-forties and export industries in a number of countries in the post-war period such as investments in Malaya and in other countries of the Far East.

176. Hence, there are reasons for expecting that a sudden and unforeseen rise in profits may not always be accompanied by a corresponding increase in the volume of investment in large-scale enterprises.[21] On the other hand, the volume of investment is more closely related to the current level of incomes and profits,

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20/ Total investment would also increase owing, inter alia, to greater requirements for working capital when the enterprises expand their output.

21/ The long-term significance of this process transcends its immediate effects. Control over the timing of investment allows large-scale enterprises to adjust their purchases and borrowings in order to lower their fixed costs, and thus contributes to reduce expenditure of real resources, and hence real unit costs, during the lifetime of fixed assets. To this extent, the process benefits the producing countries in the long run.

whether arising from favourable terms of trade or other reasons, in industries where the average size of firms is smaller, the capital intensity is lower and the lifetime of capital assets is shorter. In under-developed countries this pattern obtains more frequently in industries producing for the domestic market and among smaller firms producing for export, principally those owned by residents of the exporting country. Here the limiting factors are the low level of savings, the narrowness of the markets for the products of industry and the scarcity of certain factors of production, including managerial personnel, industrial technicians and skilled workers. All these factors increase the risks of productive investment and simultaneously make more attractive the traditional pattern of investment in commercial inventories, real estate, residential construction or purchase of foreign securities.

177. The effects of these factors are diminished in countries where the economy is more diversified. This was clearly apparent in some countries in the process of development (Argentina, Brazil, Mexico and Turkey, among others) where, during the post-war period, there was considerable public and private investment of a productive character, including a number of large-scale industrial projects.

178. In view of the technical and institutional characteristics mentioned in the preceding paragraphs, it is to be expected that in primary producing countries - especially among the less developed - the course of domestic capital formation should fail in the short run to ensure the full and adequate utilization of savings, particularly if these arise from wide fluctuations in foreign trade prices. In these cases (by no means uncommon during the period 1948 to 1952) the increase in profits and savings is accompanied by an outward flow of exporters' profits or an accumulation of idle foreign balances, and these movements check the potential secondary effects on employment and incomes of the initial increase in the gross geographic product accompanying the rise in the terms of trade.

179. In view of the extent and intensity of fluctuations in profits and incomes arising from foreign trade influences, there are clear advantages in investment policies by entrepreneurs of an "anti-cyclical" character, which would help to compensate for fluctuations in employment and incomes from current production. To the extent that private investment follows a different course, public investment, tax and borrowing programmes may be so conducted as to ensure the full and adequate utilization of savings in the short run. In particular,

programmes may be planned to offset the expansion of non-productive investment during years of favourable terms of trade and to compensate for the fall in private investment during adverse periods. The following paragraphs summarize the experience of several countries in this respect.

180. Since 1948, the Burmese economy has been seriously affected by the dislocation and destruction of the war, unsettled political conditions in the post-war period and other unfavourable factors. As a result, per capita gross geographic product in 1950/51 fell 40 per cent below the levels of 1938/39.[22/] These developments were accompanied by a serious decline in the levels of employment, consumption and savings. At the same time, the Government extended the scope of its activities, including wider participation in the fields of industry and commerce, and as a consequence the development programme of Burma began to gather momentum. There was a considerable diversion of private savings from domestic capital formation, particularly in the immediate post-war period. This, however, was partly offset by the expansion of capital disbursements by public authorities, financed entirely from current revenues.

181. After falling slightly between 1947/48 and 1948/49, consolidated government revenue grew sharply, from 466 million kyats in 1948/49 to 621 million in 1949/50 and an estimated 645 million in 1950/51, an increase of 38 per cent. The major sources of the additional revenue were higher yields from import duties, excises, sales taxes and income taxes. The improvement in export prices increased the profits of government boards engaged in export activity, and hence contributed significantly to the rise in public revenue. Consolidated current expenditures rose by 19 per cent between 1948/49 and 1950/51. Capital expenditures, on the other hand, increased at an accelerated rate, having more than doubled during the same period.

182. As a result of these trends, the consolidated government surplus grew from 53 million kyats in 1948/49 to 184 million kyats in the following year, only to decrease to 87 million in 1950/51. The accumulated budgetary surplus was reflected in the rise in the government's cash balance, which at the end of 1951 reached 422.4 million kyats.

22/ Economic Survey of Burma, 1952 (Rangoon, 1952).

183. According to revised estimates for 1951/52, the increase in revenue of over 20 per cent compared with the previous year was accompanied by moderately larger current expenditures and sharply increased capital expenditures, the latter being estimated at 283 million kyats, or 36 per cent of total expenditure. The rise in expenditure over revenue cancelled the over-all surplus in 1951/52.

184. Thus, monetary and fiscal policy in Burma offset part of the decline in private saving. The accumulation of cash reserves in the government sector neutralized the inflationary consequences of the expansion of bank loans to the public in the face of a reduced supply of goods, and facilitated the financing of the expansion of public investment necessary to restore capital equipment destroyed during the war and raise the standard of living above pre-war levels.

185. The rate of public investment is to be further increased in 1952/53, to an estimated 480 million kyats, or slightly over 40 per cent of total public expenditure. A substantial part of this sum is allocated to the development of industry and mining, as well as agriculture and transport. A deficit of 29 million kyats is expected to be covered largely from borrowing and drawing upon government cash balances.

186. The utilization of resources now under-employed will provide an initial cushion against the inflationary effect of increases in investment activity. The Government is aware of the need for stimulating private savings and developing the capital market to prevent the appearance of inflationary forces as recovery proceeds. However, it is recognized that the demands on private savings for investment purposes are likely to be large, hence the authorities propose to rely for financing investment programmes on revenue derived in large part from higher yields from existing taxes following the increase in output of goods and services. At the same time the Union Bank of Burma has been granted additional power over commercial banks.

187. In Brazil some of the major obstacles to economic development originate in the low levels of real income per head and the inability to import enough to meet growing needs for capital goods. These and other factors,[23] including

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23/ See Economic Commission for Latin America, Recent Facts and Trends in the Economy of Brazil (E/CN.12/217/Add.2).

the need to expand imports of raw materials as well as of capital goods, emphasize the importance of the increase in the country's capacity to import following the improvement of its terms of trade after 1949.

188. Gross capital formation nearly doubled between 1948 and 1951, private and public investment growing at approximately the same rates. Road building and investments in petroleum were two significant items in public investment. As to private investment, fixed capital investments in industry, public utilities and agriculture absorbed larger funds than either construction or increases in inventories.[24/] A considerable volume of investment in Brazil has been directed to the development of basic industry, particularly metallurgical, engineering and heavy chemical industries. The increase in commercial inventories was fairly moderate until 1951.

189. The increase in the capacity to import, and the even steeper rise in production of capital goods, facilitated the financing of these investment programmes without impairing the levels of consumption. The annual average volume of imports for 1951-52 increased by 69 per cent over the average for 1947-49. Capital goods participated in the general movement, but lagged behind raw materials and consumer goods. Annual imports of capital goods rose only 33 per cent in 1951-52 compared with 1947-49, but in 1952 they increased as a proportion of total imports.

190. In Ceylon, the improvement in government receipts which followed the rise in export prices was also accompanied by increased expenditure on current and capital account. The latter is largely due to development expenditure including, among other plans and projects, a programme for land development to improve the production of food for domestic markets, as well as industrial projects, transport and fuel development.

191. As the rise in revenue after 1948 improved the budgetary surplus on current account from 31.5 million rupees in 1948 to 153.2 million in 1951, expenditures on capital account also rose from 104.0 million rupees in 1948 to 222.0 million in 1951. This led to substantial over-all deficits, financed by drawing on cash reserves and by borrowing. In 1951, however, revenue again rose, by almost

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24/ However, according to preliminary data, gross investment in coffee plantations absorbed less than 2 per cent of total capital formation in 1951.

50 per cent, following an improvement in the price and the value of exports, which reduced the over-all deficit. The Government, however, continued its borrowing operations by substantially more than the actual deficit. The result has been to increase its cash balances. In 1952, the situation was reversed; according to preliminary estimates, revenue from export duties fell, reducing total revenues. Expenditure, however, continued to rise - particularly capital expenditure which almost doubled the figure of the previous year and was expected to reach a total of 433.2 million rupees, financed by further drawing on accumulated cash balances and by greatly increased borrowing.

192. The Government sought to keep down the expansion in the money supply by increasing its borrowing from non-banking sources. Actually, loans from the public (including institutional savers) were among the major sources of funds in 1951, but in 1952 the rise in the deficit was accompanied by more extensive resort to banking funds. This partly offset the consequences of the fall in foreign assets and loans to the public upon the money supply, which therefore remained relatively stable during 1951/52.[25/]

193. The above examples illustrate the role of private capital in the investment process as well as the use of fiscal and monetary policy by governments to channel an increasing proportion of the savings of the community into productive investment when the national product expands in response to improvement in the terms of trade. At the same time, the maintenance of the volume of public investment during years of deteriorating terms of trade contributes to offset the decline in private capital formation.

194. The capacity of productive facilities and the degree of diversification and industrialization achieved by the economy determine the effectiveness of fiscal measures to promote economic development during extended periods of deteriorating terms of trade, just as the same factors contribute to set limits to the adequate utilization of gains from trade during periods of improving terms of trade. It is clear, however, that the response of the private sector to

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25/ The impact of the financial operations on the cost of living was further lessened by increasing food subsidies and by Central Bank regulation of the reserve requirements of commercial banks, which limited the extent of credit expansion.

favourable trends in foreign trade prices is not always conducive - either in timing or in direction - to investments which promote economic developments. Some of the examples in the preceding pages demonstrate that during recent years, the fuller utilization of gains from trade for the purpose of achieving a lasting improvement in the use of resources rests in part upon the adequacy of government programmes designed to increase the degree of diversification and industrialization of the economy.

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